

Volume

#

R0394

SECTION 14

BOOK A-394

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Township 35 South Range 23 East

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FIELD NOTES

OF THE SURVEY OF THE

Of the _____ Meridian,

In the State of _____

EXECUTED BY

In the capacity of U.S. Surveyor _____, under instructions dated _____, 191____,
issued by the United States Surveyor General to govern surveys included in
Group No _____, which were approved by the Commissioner of the General Land
Office, _____, 191____, pursuant to authority contained in the Act of
Congress dated _____, 191____.

Survey commenced _____, 191____

Survey completed _____, 191____

INDEX DIAGRAM.

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FIELD NOTES

OF THE SURVEY OF THE

Of the _____ Meridian,

In the State of _____

EXECUTED BY

In the capacity of U. S. Surveyor_____, under instructions dated_____, 191_____,
issued by the United States Surveyor General to govern surveys included in
Group No. _____, which were approved by the Commissioner of the General Land
Office, _____, 191_____, pursuant to authority contained in the Act of
Congress dated _____, 191_____.

Survey commenced _____, 191_____.

Survey completed _____, 191_____.

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FIELD NOTES

OF THE SURVEY OF THE

Of the Meridian,

In the State of

EXECUTED BY

In the capacity of U. S. Surveyor, under instructions dated, 191...,
 issued by the United States Surveyor General to govern surveys included in
 Group No., which were approved by the Commissioner of the General Land-
 Office,, 191..., pursuant to authority contained in the Act of
 Congress dated, 191....

Survey commenced, 191....

Survey completed, 191....

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INDEX DIAGRAM.

Forming *to* *Range*

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Survey commenced June 11, 1911, and executed with a Young & Sons light mountain transit, No. 7147, with solar attachment.

The horizontal limb is provided with double verniers, placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the Surveyor General for Utah, June 1, 1911.

I examine the adjustments of the transit, and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of Tps. 34 and 35 S., Rs. 23 and 24 E., which is a sandstone 6x12x4 ins. above ground, marked and witnessed as described by the surveyor general, in approximate latitude $37^{\circ}49'N.$, longitude $109^{\circ}23'W.$, I set off $37^{\circ}49'N.$ on lat. arc, $23^{\circ}05'N.$ on decl. arc, and at 3h. 59m. p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

June 11, 1911

June 12: At 2h. 13m., a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 6 a.m., I lay off the azimuth of Polaris, $1^{\circ}29'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.4 ins. east of the mark determined by the solar.

At 7h. 59m., a.m., l.m.t., I set off $37^{\circ}49'N.$ on lat. arc, $23^{\circ}03'N.$ on decl. arc, and mark a point in the meridian determined with the solar, by a cross on the stone already set

TRACEMENT OF THE COLORADO GUIDE MERIDIAN, through TOWNSHIP 35 S., R. 23 E.

CHAINS

5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about 0'21" west and 0'16" east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h. 30m., a.m., is N. 15°40' W.; the angle thus determined gives the mag. decl. 15°40' E.

Preliminary to commencing the survey of this township I retrace the E. boundary, which is the Colorado Guide meridian, as follows:

From the Tp. cor., already described, I run with two sets of chainmen

South, retracing between secs. 1 and 6.

Ascend over rolling land, through dense undergrowth.

3.52 Wire fence, bears NE. and SW.

22.00 Ridge, bears E. and W.

Gradual descent.

Difference between measurement by two sets of chainmen to the $\frac{1}{4}$ sec. cor. is 2 lks., position of cor.

By 1st. set, 40.03 chs.,

By 2nd. set, 40.01 chs., the mean of which is

40.02 Fall 2 lks. W. of the $\frac{1}{4}$ sec. cor. which is a sandstone, 5x8x6 ins., above ground, marked and witnessed as described by the surveyor general.

I continue on same line

66.10 Ravine 50 ft. deep, course SE.

Ascend.

68.00 Enter scattering timber.

72.20 Begin descent.

79.60 Wash, 10 lks. wide, 3 ft. deep, course SE.

Difference between measurement by two sets of chainmen to the sec. cor. is 4 lks., position of cor.

By 1st. set, 80.06 chs.,

By 2nd. set, 80.02 chs., the mean of which is

CHAINS	
80.04	<p>Fall 5 lks. W. of the cor. of secs. 1-6-7 and 12, which is a basalt stone, 8x10x6 ins. above ground, marked and witnessed as described by the surveyor general.</p> <p>The course of this line is therefore S. 0° 02' E., and the distance 80.04 chs.</p> <p>Land, rolling.</p> <p>Soil, sandy loam, over 24 ins. deep, sloping west, 1st. rate.</p> <p>Timber, scattering cedar and pinon on last 12.04 chs.</p> <p>Undergrowth, sage brush.</p> <p>Land covered with dense undergrowth on 80.04 chs.</p> <p>June 12: At this cor. I set off 23° 08' N. on decl. arc, and at 11h. 59m., a.m., l.m.t., observe the sun on the meridian the resulting lat. is 37° 48' N.</p>

	<p style="text-align: center;">South, retracing bet. secs. 7 and 12.</p> <p>Descend over rolling land, through dense undergrowth and scattering timber.</p> <p>12.40 Hollow, 50 ft. deep, course SE.</p> <p>Ascend.</p> <p>20.00 Enter heavy timber, bears NW. and SE.</p> <p>31.60 Begin abrupt descent over sandstone ledges, bearing NW. and SE.</p> <p>Difference of measurement by two sets of chainmen to the $\frac{1}{4}$ sec. cor. is 6 lks., position of cor.</p> <p style="padding-left: 40px;">By 1st. set, 39.99 chs.,</p> <p style="padding-left: 40px;">By 2nd. set, 40.05 chs., the mean of which is</p> <p>40.02 Fall 18 lks. W. of the $\frac{1}{4}$ sec. cor. which is a cross (X), on the solid sandstone ledge, marked and witnessed as described by the surveyor general.</p> <p>I continue on same line</p> <p>44.75 Enter bottom of Dodge Canyon, 125 ft. deep, course SE.</p> <p>In bottom of canyon, over nearly level land.</p> <p>78.50 Wash of Dodge Canyon, 15 lks. wide, 10 ft. deep, course SE.</p> <p>Difference of measurement by two sets of chainmen to the sec. cor. is 4 lks., position of sec. cor.</p> <p style="padding-left: 40px;">By 1st. set, 80.00 chs.</p>

CHAINS

80.02 By 2nd.set, 80.04 chs., the mean of which is Fall 37 lks.w. of the cor. of secs. 7-12-13 and 18, which is a sandstone, 16x16x14 ins. above ground, marked and witnessed as described by the surveyor general. The course of this line is therefore $81^{\circ}16'$ E., and the distance 80.02 chs.

Land, rolling, mountainous and nearly level.

Soil, on rolling portion, sandy loam over 24 ins. deep, 1st. rate, mountainous portion, sandstone ledges, 4th. rate, bottom land, a rich black loam of great depth, 1st. rate.

Undergrowth, sage brush.

Timber, scattering cedar and pinon.

Mountainous land or land covered with dense undergrowth on 80.02 chs.

South, retracing bet. secs. 13 and 18.

Over nearly level land, through dense undergrowth, in bottom of Dodge Canyon.

3.50 Wash, 15 lks. wide, 6 ins. deep, drains SE.

17.30 Wash, 50 lks. wide, 5 ft. deep, course SE.

18.80 Leave bottom of canyon, bears NW. and SE.

Ascend along rocky east slope.

36.50 Enter scattering timber.

Difference between measurement by two sets of chains to the $\frac{1}{4}$ sec. cor. is 4 lks., position of cor.

By 1st. set, 40.00 chs.,

By 2nd. set, 39.96 chs., the mean of which is

39.98 Fall 3 lks. E. of the $\frac{1}{4}$ sec. cor. which is a sandstone, 14x12x8 ins., above ground, marked and witnessed as described by the surveyor general.

June 12, 1911

June 13: At 8h. 0m., a.m., l.m.t., I set off $37^{\circ}46'$ N. on lat. arc, $23^{\circ}11'$ N. on decl. arc, and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. bet. secs. 13 and 18.

Thence I run

CHAINS

South, retracing bet. secs. 13 and 18., with continuous measurement.

65.00 Begin abrupt ascent over sandstone ledges, bearing NW. and SE.

67.36 Top of ledges, 50 ft. high, bearing NW. and SE.
Descend over rolling mesa.

Difference of measurement by two sets of chainmen to the sec. cor. is 6 lks., position of cor.

By 1st. set, 80.14 chs.,

By 2nd. set, 80.20 chs., the mean of which is

80.17 Fall $\frac{1}{3}$ lks. E. of the cor. of secs. 13-18-19 and 24, which is a sandstone, 14x8x6 ins. above ground, marked and witnessed as described by the surveyor general. X

The course of this line is therefore S. 0° 03' W., and the distance 80.17 chs.

Land, bottom land, mountainous and rolling mesa.

Soil, rich black loam of great depth in bottoms, 1st. rate rocky, boulders and sandstone ledges on mountainous portion, 3rd. and 4th. rate, while on the mesa, the soil is from 4 to 8 ins. deep, a sandy loam on solid sandstone, 3rd. rate.

Timber, cedar and pinon.

Undergrowth, sage brush.

Mountainous land or land covered with dense undergrowth on 80.00 chs.

South, retracing bet. secs. 19 and 24.

Gradual descent over mesa, through dense undergrowth and scattering timber.

33.50 Enter heavy timber, bears E. and W.

Difference between measurements by two sets of chainmen to the $\frac{1}{4}$ sec. cor. is 2 lks., position of cor.

By 1st. set, 39.99 chs.,

By 2nd set, 39.97 chs., the mean of which is

39.98 Fall $\frac{1}{4}$ lks. E. of the $\frac{1}{4}$ sec. cor. which is a sandstone, 12x5x5 ins. above ground, marked and witnessed as described

<p>CHAINS</p>	<p>by the surveyor general. I continue on same line.</p>
<p>53.07</p>	<p>Begin abrupt descent over sandstone ledges and boulders, bearing NW. and SE.</p>
<p>77.25</p>	<p>Long Canyon, 150 ft. deep, course SW. Abrupt ascent. Difference between measurements by two sets of chainmen to the sec. cor. is 10 lks., position of cor.</p>
	<p>By 1st. set, 80.00 chs.,</p>
	<p>By 2nd. set, 79.90 chs., the mean of which is</p>
<p>79.95</p>	<p>Fall 47 lks. E. of the cor. of secs. 19-24-25 and 30, which is a sandstone 14x10x8 ins., above ground, marked and witnessed as described by the surveyor general. The course of this line is therefore S. 0° 20' W., and the distance 79.95 chs. Land rolling on first 53.07 chs., balance mountainous. Soil, a layer of sandy loam from 4 to 8 ins. thick on solid sandstone on rolling portion, balance, solid sandstone ledges, rocky and boulders, 3rd. and 4th. rate. Timber, heavy cedar and pinon. Mountainous land or land heavily timbered on 79.95 chs. Note: On this day the sky is overcast and an observation for latitude is impossible.</p>
<p>15.00 31.12</p>	<p>South, retracing bet. secs. 25 and 30. Ascend over rocky and mountainous land, through heavy timber. Ascent bears NW. and SE. Top of ascent and south rim of Long Canyon, bears NW. and SE. Gradual descent over rolling mesa. Difference between measurements by two sets of chainmen to the $\frac{1}{2}$ sec. cor. is 8 lks., position of cor. By 1st. set, 40.24 chs. By 2nd. set, 40.16 chs., the mean of which is</p>

CHAINS

40.20

Fall 14 lks. east of the $\frac{1}{4}$ sec. cor. which is a sandstone 18x8x5 ins. above ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore S.0°12'W., and the distance 40.20 chs.

June 13, 1911

June 15: At 8 a.m., l.m.t., I set off 37°45'N. on lat. arc, 23°18'N. on decl. arc, and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. bet. secs. 25 and 30.

Thence I continue with continuous measurements

South, retracing bet. secs. 25 and 30.

Gradual descent over rolling mesa, through heavy timber.

Difference bet. measurements by two sets of chainmen to the cor. of secs. 25-30-31 and 36 is 2 lks., position of cor.

By 1st. set, 79.98 chs.,

By 2nd. set, 80.00 chs., the mean of which is

79.99

Fall 14 lks. east of the cor. of secs. 25-30-31 and 36, which is a quartzite stone 8x8x5 ins. above ground, marked and witnessed as described by the surveyor general.

The course of the entire line is therefore S.0°12'W., and the distance 79.99 chs.

Land, mountainous and rolling.

Soil, broken sandstone ledges, rocky land and boulders on

first 31.12 chs., 4th. rate; balance, sandy loam,

from 6 to 12 ins. thick on solid sandstone, 3rd. rate.

Timber, heavy cedar and pinon.

Mountainous land or land covered with heavy timber, on

79.99 chs.

South, retracing bet. secs. 31 and 36.

Gradual descent over rolling mesa, through heavy timber.

17.65

Begin abrupt descent over sandstone ledges, bearing NW. and SE.

22.50

Foot of abrupt descent, 50 ft. high, bears NW. and SE.

Descend over rocky land and boulders.

CHAINS

Difference between measurement by two sets of chainmen to the $\frac{1}{2}$ sec. cor is 8 lks., position of cor.

By 1st. set, 39.91 chs.,

By 2nd. set, 39.83 chs., the mean of which is

39.87

Fall 10 lks. west of the $\frac{1}{4}$ sec. cor. which is a sandstone 18x24x8 ins. above ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore $S.0^{\circ}09'E.$, and the distance 39.87 chs.

June 15: At this cor. I set off $23^{\circ}18'N.$ on decl. arc, and at 12^{M.}, l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}44'N.$

Thence I continue on same line

57.50

Wash, 100 lks. wide, 10 ft. deep, course SW.

77.50

Begin abrupt descent over sandstone ledges, bearing NE. and SW.

Difference bet. measurement by two sets of chainmen to the stan. Tp. cor. is 10 lks., position of cor:

By 1st. set, 80.14 chs.,

By 2nd. set, 80.04 chs., the mean of which is

80.09

Fall 21 lks. W. of the stan. cor. to T. 35 S., R. 23 and 24 E., which is a sandstone boulder, 48x24x12 ins. above ground, marked and witnessed as described by the surveyor general.

The course of the entire mile is $S.0^{\circ}09'E.$, and the distance 80.09 chs.

Land, rolling and mountainous.

Soil, sandy loam from 4 to 8 ins. deep, on first 22.50 chs.

3rd. rate; balance, sandstone ledges, rocky land and boulders, 3rd. and 4th. rate.

Timber, heavy cedar and pinon.

Mountainous land or heavily timbered land on 80.09 chs.

June 15, 1911

For General Description see Subdivisions of T. 35 S., R. 23 E. For table of latitudes and departures see W. Boundary of T. 35 S., R. 23 E.

Melvin D. Geist
U.S. Transitman

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oaths of transit see book "Z" " T. 32 S. E. 26 E.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____ and sworn to before me } this _____ day of _____, 191____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL, Salt Lake City, Utah, March 19____, 191____.

The foregoing field notes of the ~~ANNEX~~ retriacement of the Colorado Guide Meridian, Township No. 35 South, between Ranges 23 and 24 East of the Salt Lake Base and Meridian, Utah,

executed by _____ Melvin D. Heist _____ under his special instructions dated _____ May 22 _____, 191____, having been critically examined, and the necessary corrections and explanations made, the said field notes and the surveys they describe, are hereby approved.

Thomas Hill
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.

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FEB 10 1912

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BOOK A-394

FIELD NOTES

RESURVEY
OF THE SURVEY OF THE

SEVENTH STANDARD PARALLEL SOUTH,

through

RANGE NO. 23 EAST,

Of the Salt Lake Base and Meridian,

In the State of Utah

EXECUTED BY

Melvin D. Heist and Eben B. Andrews

Transitmen

In the capacity of U. S. Surveyors, under instructions dated May 22, 1911,

issued by the United States Surveyor General to govern surveys included in

Group No. 12, which were approved by the Commissioner of the General Land

Office, June 17, 1911, pursuant to authority contained in the Act of

Congress dated _____, 1911

Survey commenced June 15, 1911

Survey completed June 18, 1911

BOOK A-394

INDEX DIAGRAM.

Township 35 South, Range 23 East

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31	32	33	34	35	36
10	8	7	5	3	2

Survey commenced June 15, 1911, and executed with the instrument described in book "A", of this survey.

I examine the adjustments of the transit and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At the Stan. cor. of Tps. 35 S., Rs. 23 and 24^E, heretofore described in approximate latitude $37^{\circ}43'N.$, longitude $109^{\circ}23'W.$, I set off $37^{\circ}43'N.$ on lat. arc, $23^{\circ}19'N.$ on decl. arc, and at 4h. 0m., p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

June 15, 1911

June 16: At 1h. 58m., a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions and mark a point in the line thus determined, on a peg, driven in the ground, 5 chs. N. of my station.

At 6 a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}28'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.4 ins. east of the mark determined by the solar.

At 8h. 0m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on lat. arc, $23^{\circ}21'N.$ on decl. arc, and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation. The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about $0'21''$ west and $0'16''$ east of the meridian established by the Polaris observations; therefore, I conclude that the

CHAINS

adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 8h. 30m. a.m., is N. 15° 40' W., the angle thus determined gives the mag. decl. 15° 40' E.

I proceed to resurvey the 7th. Stan. Par. South, as follows:

From the standard cor. already described, I run

West, resurveying on S. Bdy. of sec. 36.

Ascend over sandstone boulders and mountainous land, through heavy timber.

1.80 Top of spur, 60 ft. above cor., projects S.

Descend.

17.80 Hollow, 50 ft. deep, course S.

Ascend.

31.60 Spur, projects S.

Descend.

Difference between measurement of 40.00 chs. by two sets of chainmen is 4 lks., position of middle point

By 1st. set, 40.02 chs.,

By 2nd. set, 39.98 chs., the mean of which is

40.00 Set an iron post, 3 ft. long, 1 in. dia., in mound of stone and earth for re-established stan. $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 36 on N. half, from which

A cedar, 18 ins. diam., bears N. 32° 30' W., 43 lks. dist., marked $\frac{1}{4}$ S 36 SC BT.

A cedar, 12 ins. diam., bears N. 57° 10' E., 191 lks. dist., marked $\frac{1}{4}$ S 36 SC BT.

Note:

On account of natural obstacles it is impossible to set this post over 12 ins. in the ground.

After diligent search no trace can be found of the old stan. $\frac{1}{4}$ sec. cor.

46.30 Indian Canyon, 250 ft. deep, course S.

Ascend.

54.50 Divide between Indian Canyon and Devil Canyon, bears N. and S.

CHAINS

80.00 Difference between measurement of 80.00 chs., by two sets of chainmen is 6 lks., position of middle point

By 1st. set, 80.03 chs.,

By 2nd. set, 79.97 chs., the mean of which is

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established stan. cor. of secs. 35 and 36, marked on brass cap,

T 35 S S ³⁵ in NW., and

R 23 E S ³⁶ in NE. quadrant, from which

A cedar, 10 ins. diam., bears N. 75° 30' E., 73 lks. dist., marked T 35 S R 23 E S ³⁶ BT.

A cedar, 12 ins. diam., bears N. 27° 43' W., 47 lks. dist., marked T 35 S R 23 E S ³⁵ BT.

After diligent search no trace can be found of the old stan. sec. cor.

Land mountainous.

Soil, rocky, covered with loose boulders, solid sandstone covered with thin sandy soil, 4th. rate.

Timber, cedar and pinon.

Undergrowth, scattering growth of sage brush.

Mountainous land and heavily timbered land on 80.00 chs.

June 16: At this cor. I set off 23° 21' N. on decl. arc, and at 12 M., 1. m. t., observe the sun on the meridian, the resulting lat. is 37° 43' N.

West, resurveying on S. Bdy. sec. 35.

18.00 Descend over rocky and mountainous land, through heavy timber.

Dry bed of Devil's Canyon, 250 ft. deep, course SE.

Ascend.

Difference between measurement of 40.00 chs., by two sets of chainmen is 2 lks., position of middle point

By 1st. set, 39.99 chs.,

By 2nd. set, 40.01 chs., the mean of which is

RESURVEY OF THE SEVENTH STANDARD PARALLEL SOUTH, through R. 23 E.

CHAINS

- 49.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 35 on N. half, from which
- A cedar, 6 ins. diam., bears N. 48° 16' W., 29 lks. dist., marked $\frac{1}{4}$ S 35 SC BT.
- A cedar, 7 ins. diam., bears N. 58° 11' E., 173 lks. dist., marked $\frac{1}{4}$ S 35 SC BT.
- After diligent search no trace can be found of the old stan. $\frac{1}{4}$ sec. cor.
- 43.00 Begin abrupt ascent over sandstone ledges, bearing NW. and SE.
- 47.52 Top of nearly perpendicular ledges, 200 ft. high, bearing NW. and SE.
- Gradual ascent through heavy timber.
- Difference between measurement of 80.00 chs., by two sets of chainmen is 8 lks., position of middle point
- By 1st. set, 80.04 chs.,
- By 2nd. set, 79.96 chs., the mean of which is
- 80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established stan. cor. of secs. 34 and 35, marked on brass cap,
- T 35 S S 34 in NW., and
- R 23 E S 35 in NE. quadrant, from which
- A cedar, 8 ins. diam., bears N. 23° 10' E., 9 lks. dist., marked T 35 S R 23 E S 35 BT.
- A cedar, 14 ins. diam., bears N. 72° 52' W., 53 lks. dist., marked T 35 S R 23 E S 34 BT.
- After diligent search no trace can be found of the old stan. sec. cor.
- Land mountainous on 47.52 chs.
- balance, nearly level.
- Soil, solid sandstone covered with boulders and thin soil on mountainous portion, and with sandy soil 5 ins. thick on balance.

CHAINS

Timber, cedar and pinon.

Undergrowth, scattering sage brush.

Mountainous land and heavily timbered land on 80.00 chs.

June 16, 1911

June 17: At 8 a.m., l.m.t., I set off $37^{\circ}43'N.$ on lat. arc, $23^{\circ}23'N.$ on decl. arc. and determine a meridian with the solar at the stan. cor. of secs. 34 and 35.

Thence I run

West, resurveying on S. Bdy. of sec. 34.

Gradual ascent over nearly level land, through heavy timber.

12.30 Begin gradual descent.

29.15 Stake fence, bears NE. and SW.

Difference between measurement of 40.00 chs. by two sets of chainmen is 2 lks., position of middle point

By 1st. set, 40.01 chs.,

By 2nd. set, 39.99 chs., the mean of which is

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for re-established stan. $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 34° on N. half, from which

A pinon, 10 ins. diam., bears N. $32^{\circ}11'W.$, 50 lks. dist., marked $\frac{1}{4}$ S 34 SC BT.

A cedar, 10 ins. diam., bears N. $79^{\circ}01'E.$, 149 lks. dist., marked $\frac{1}{4}$ S 34 SC BT.

After diligent search no trace can be found of the old stan. $\frac{1}{4}$ sec. cor.

55.60 Begin abrupt descent over sandstone ledges, bearing N. and S.

57.20 Hollow, 75 ft. deep, course S.

Abrupt ascent over sandstone ledges.

66.70 Top of abrupt ascent, bears N. and S.

Gradual ascent.

CHAINS

Difference between measurement of 80 chs. by two sets of chainmen is 8 lks., position of middle point

By 1st. set, 80.04 chs.,

By 2nd. set, 79.96 chs., the mean of which is

80.00

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established stan. cor. of secs. 33 and 34, marked on brass cap,

T 35 S S 33^{\vee} in NW., and

R 23 E S 34^{\vee} in NE. quadrant, from which

A. pinon, 12 ins. diam., bears N. $42^{\circ} 48'$ W., 290 lks. dist., marked T 35 S. R 23 E S 33^{\vee} BT.

No other trees within limits; dig pits, 24 x 18 x 12 ins., crosswise on each line, E. and W., 3 ft., and N. of post, 7 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, N. of cor.

After diligent search no trace can be found of the old stan. sec. cor.

Land, rolling and mountainous.

gently rolling mesa, soil, yellow sandy loam,

2 to 6 ins. deep, on solid sandstone on first

55.60 chs., broken sandstone ledges on next 11.10

chs., balance same as first 55.60 chs.

Timber, heavy cedar and pinon.

No undergrowth.

Mountainous land or heavily timbered land on 80.00 chs.

June 17: At this cor. I set off $23^{\circ} 23'$ N. on dec. arc,

and at 12 M., l. m. t., observe the sun on the meridian,

the resulting lat. is $37^{\circ} 43'$ N.

CHAINS

West, resurveying on S. Bdy. of sec. 33

Gradual ascent over nearly level land, through dense undergrowth.

29.50 Top of ascent.

Begin gradual descend.

36.65 Old wagon road, bears N. and S.

Difference between measurement of 40.00 chs. by two sets of chainmen is 4 lks., position of middle point

By 1st. set, 40.02 chs.

By 2nd. set, 39.98 chs. the mean of which is

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins in the ground, for re-established stan. $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S. 33 on N. half, from which

A pinon, 9 ins. dia., bears N. $65^{\circ}33'$ W., 151 lks. dist., marked $\frac{1}{4}$ S $\frac{1}{3}$ SC BT.

A pinon, 6 ins. dia., bears N. $78^{\circ}10'$ E., 204 lks. dist., marked $\frac{1}{4}$ S $\frac{1}{3}$ SC BT.

After diligent search no trace can be found of the old stan. $\frac{1}{4}$ sec. cor.

Gradual descend over rolling ground, through scattering timber.

Difference between measurement of 80.00 chs. by two sets of chainmen is 8 lks., position of middle point

By 1st. set, 80.04 chs.,

By 2nd. set, 79.96 chs., the mean of which is

80.00 Set an iron post, 3 ft. long, 3 ins. dia., in mound of stone and earth, for re-established stan. cor. of secs. 32 and 33, marked on brass cap,

T 35 S S $\frac{1}{2}$ 32 in NW., and

R 23 E S $\frac{1}{2}$ 33 in NE. quadrant, from which

A pinon, 14 ins. diam., bears N. $54^{\circ}35'$ E., 69 lks. dist., marked T 35 S R 23 E S $\frac{1}{2}$ 33 BT.

A pinon, 9 ins. diam., bears N. $73^{\circ}53'$ W., 46 lks. dist., marked T 35 S R 23 E S $\frac{1}{2}$ 32 BT.

Note:

On account of natural obstacles it is impossible

CHAINS

to set this post over 12 ins. in the ground.

After diligent search no trace can be found of the old stan. sec. cor.

Land, gently rolling mesa, soil, yellow sandy loam,

4 to 10 ins. deep, on solid sandstone., 2nd. rate.

Timber, scattering cedar and pinon on last 40.00 chs.

Undergrowth, sage brush.

Land covered with dense undergrowth on 80.00 chs.

June 17, 1911

June 18: At 8h. 01m., a.m., 1.m.t., I set off $37^{\circ}43'N.$ on lat. arc, $23^{\circ}25'N.$ on decl. arc. and determine a meridian with the solar at the stan. cor. of secs. 33 and 32.

Thence I run

West, resurveying on S. Bdy. of sec. 32

Gradual descent, through scattering timber.

6.10 Top of ledges bears NE. and SW.

Abrupt descent over sandstone ledges,

9.60 Bottom of ravine 100 ft. deep, course SW.

Abrupt ascent over sandstone ledges.

13.40 Top of ledges bearing NE. and SW.

Gradual ascent.

21.20 Top of spur, projects S.

Gradual descent.

27.10 Top of ledges bearing N. and S.

Abrupt descent over sandstone ledges.

37.30 Bottom of canon, 225 ft. deep, course S. Abrupt ascent.

Difference between measurement of 40.00 chs. by two sets of chainmen is 6 lks., position of middle point

By 1st. set, 40.03 chs.,

By 2nd. set, 39.97 chs., the mean of which is

40.00 Set an iron post, 3 ft. long, 1 in. dia., in mound of stone and earth for re-established stan. $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 32 on N. half, from which

CHAINS

A pinon, 6 ins. diam., bears N. 45° 01' W., 17 lks. dist., marked $\frac{1}{2}$ S 32[✓] SC BT.

A cedar, 12 ins. diam., bears N. 6° 09' E., 192 lks. dist., marked $\frac{1}{4}$ S 32[✓] SC BT.

Note:

On account of natural obstacles it is impossible to set this post over 12 ins. in the ground.

After diligent search no trace can be found of the old stan. $\frac{1}{4}$ sec. cor.

42.00 Top of abrupt ascent, bears N. and S.

Over rolling mesa.

72.21 Begin abrupt descent over sandstone ledges, bearing N. and S.

74.00 Hollow, 75 ft. deep, course S.

Abrupt ascent.

78.15 Top of abrupt ascent, bears NE. and SW.

Over level land.

Difference between measurement of 80.00 chs. by two sets of chainmen is 8 lks., position of middle point

By 1st. set, 80.04 chs.,

By 2nd. set, 79.96 chs., the mean of which is

80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established stan. cor. of secs. 31 and 32, marked on brass cap,

T 35 S S 31[✓] in NW. and R 23 E S 32[✓] in NE. quadrant, from which

A pinon, 8 ins. diam., bears N. 7° 03' W., 96 lks. dist., marked T 35 S R 23 E S 31[✓] BT.

A cedar, 24 ins. diam., bears N. 50° 50' E., 70 lks. dist., marked T 35 S R 23 E S 32[✓] BT.

After diligent search no trace can be found of the old stan. sec. cor.

Land, mountainous, rolling and level.

Soil, sandy loam from 4 to 10 ins. thick on the mesas, 3rd. rate, ~~xxxxxx~~, solid sandstone and

CHAINS

boulders on balance.

Timber, scattering cedar and pinon.

Mountainous land on 33.14 chs.

June 18: At this cor. I set off $23^{\circ}25'N.$ on decl. arc, and at 0h. 01m., p.m., l.m.t., observe the sun on the meridian the resulting lat. is $37^{\circ}43'N.$

West, resurveying on S. bdy. of sec. 31.

Gradual descent through heavy timber.

1.50 Begin abrupt descent over sandstone ledges, bearing N. and S.

8.40 Hollow, 75 ft. deep, course SW.
Abrupt ascent.

14.80 Top of abrupt ascent, bears NE. and SW.
Over rolling land.

20.70 State road, from Grayson to Monticello, bears N. and S.

25.10 Begin abrupt descent over sandstone ledges, bearing N. and S.

30.50 Hollow, 60 ft. deep, course S.
Abrupt ascent.

34.15 Top of abrupt ascent, bears N. and S.
Over broken land, nearly level.

Difference between measurement of 40.00 chs., by two sets of chainmen is 6 lks., position of middle point.

By 1st. set, 39.97 chs.,

By 2nd. set, 40.03 chs., the mean of which is

40.00 Set an iron post, 3 ft. long, 1 in. dia., in mound of stone and earth, for re-established stan. $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 31 on N. half, from which

A cedar, 10 ins. diam., bears $N. 81^{\circ}10'W.$, 109 lks. dist., marked $\frac{1}{4}$ S 31 SC BT.

A pinon, 6 ins. diam., bears $N. 45^{\circ}20'E.$, 40 lks. dist., marked $\frac{1}{4}$ S 31 BT.

Note:

CHAINS

On account of natural obstacles it is impossible to set this post over 12 ins. in the ground.

After diligent search no trace can be found of the old stan. $\frac{1}{2}$ sec. cor.

50.58 Intersect E. bdy. of T. 36 S., R. 22 E., 6.96 chs., south of the $\frac{1}{2}$ sec. cor. bet. secs. 1 and 6 and 33.04 chs. north of the cor. of secs. 1-6-7 and 12, which is a porphyry stone, 8x8x6 ins. above ground, marked and witnessed as described by the surveyor general.

Said E. bdy. of T. 36 S., R. 22 E., is also the Colorado Guide Meridian.

At point of intersection I set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for closing corner of Tp. 36 S., Rs. 22 and 23 E., on Colorado Guide Meridian, marked on brass cap, T 35 S R 22 E S 36 R 23 E S 31 on N. half, CC S1 R 22 E S 6 R 23 E T 36 S on S. half, from which

A pinon, 9 ins. diam., bears S. 23° 31' E., 100 lks. dist., marked T 36 S R 23 E S 6 BT.

A pinon, 9 ins. diam., bears S. 81° 27' W., 40 lks. dist., marked T 36 S R 22 E S 1 BT.

I destroy all traces of the old $\frac{1}{2}$ sec. cor. bet. secs. 1 and 6, which is north of the stan. line.

55.20 Begin abrupt descent over sandstone ledges, bearing N. and S.

77.00 Hollow, 250 ft. deep, course SW.
Ascend over broken land.

80.00 Set temporary stan. cor. of Tp. 35 S., Rs. 22 and 23 E.

June 18, 1911

80.36 After running the west bdy. of T. 35 S., R. 23 E., I set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for stan. cor. of Tp. 35 S., Rs. 22 and 23 E., marked on brass cap, T 35 S on N. half,

R 22 E S 36 in NW. and R 23 E S 31 in NE. quadrant

CHAINS

from which

A cedar, 13 ins. diam., bears N. $38^{\circ}18'E.$, 26 lks.
dist., marked T 35 S R 23 E S 31 BT.

A pinon, 8 ins. diam., bears N. $57^{\circ}25'W.$, 64 lks.
dist., marked T 35 S R 22 E S 36 BT.

After diligent search no trace can be found of the old
stan. Tp. cor.

Land, mountainous and rolling.

Soil, sandy loam from 4 to 8 ins. thick on the mesas
3rd. rate, balance, solid sandstone and boulders,
4th. rate.

Timber, cedar and pinon.

Mountainous land and heavily timbered land on 20.00
chs.

June 24, 1911

For General Description see Subdivisions of T. 35 S., R.
23 E.

For table of latitudes and departures see W. Bdy. of
T. 35 S., R. 23 E.

Melvin D. Heit
U. S. Transitman

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 _____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of transitman see book "Z¹" T. 22 S. R. 26 E.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191 _____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, March 19, 1914.

The foregoing field notes of the ^{re} survey of the Seventh Standard Parallel South through Range 24 East of the Salt Lake Base and Meridian, Utah,

executed by Melvin D. Heist under his special instructions dated May 22, 1911, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

James Hill
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.

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"C"
BOOK "A-394

FIELD NOTES

OF THE SURVEY OF THE

WEST BOUNDARY

of

TOWNSHIP NO. 35 SOUTH, RANGE NO. 23 EAST

Of the Salt Lake Base and Meridian,

In the State of Utah

EXECUTED BY:

Melvin D. Heist and Eben E. Andrews

In the capacity of U. S. ^{Transitmen} ~~Surveyors~~, under instructions dated May 22, 1911, issued by the United States Surveyor General to govern surveys included in Group No. 12, which were approved by the Commissioner of the General Land Office, June 17, 1911, pursuant to authority contained in the Act of Congress dated 1911

Survey commenced June 19, 1911

Survey completed June 24, 1911

BOOK A-394

INDEX DIAGRAM.

Township 35 South, Range 23 East

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Survey commenced June 18, 1911, and executed with the instrument described in book "A", of this survey.

I examine the adjustments of the transit and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At the temporary standard cor. of Tp. 35 S., Rs. 22 and 23 E., in approximate lat. $37^{\circ}43'N.$, longitude $109^{\circ}29'W.$, I set off $37^{\circ}43'N.$ on lat. arc, $23^{\circ}25'N.$ on decl. arc, and at 4h. 01m., p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

June 18, 1911

June 19: At 1h. 46m., a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 6 a.m., I lay off the azimuth of Polaris, $1^{\circ}28'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.3 ins. east of the mark determined by the solar.

At 8h. 01m., a.m., l.m.t., I set off $37^{\circ}43'N.$, on lat. arc, $23^{\circ}26'N.$ on decl. arc, and mark a point in the meridian determined with the solar by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.2 ins. east of the meridian established by the Polaris observation. The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about $0'16''$ west and $0'11''$ east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

CHAINS

The magnetic bearing of the true meridian at 8h.30m., a.m.is N.15°40'W., the angle thus determined gives the mag.decl.15°40'E.

From the temp.Tp.cor.,I run

North, on a random line along the W.Bdy.of T.35 S.,R.23 E., setting temp. $\frac{1}{4}$ sec.and sec.cors.at intervals of 40.00 chs.; and at 479.84 chs.,intersect the S.bdy.of T.34 S.,R.23 E., $\frac{3}{6}$ lks.east of the cor.of Tps.34 and 35 S. Rs.22 and 23 E.,which is a sandstone,18x12x4 ins., firmly set in a mound of stone,marked and witnessed as described by the surveyor general.

June 22, 1911

June 23: At 8h.02m.,a.m.,1.m.t.,I set off 37°49'N.on lat.arc,23°28'N.on decl.arc,and determine a meridian with the solar at the cor.of Tps.34 and 35 S.,Rs.22 and 23 E.

Thence I run

South, bet.secs.1 and 6,

marking and blazing true line.

Gradual descent over rocky land,through heavy timber.

3.80 Begin abrupt descent over broken sandstone ledges, bearing NW.and SE.

28.15 Bull,Dog Canyon,100 ft.deep,course SE.
Abrupt ascent.

39.84 Set an iron post,3 ft.long,1 in dia.,26 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S 1 on W. half and S 6 on E.half, from which

A pine,8 ins.diam.,bears S.11°34'W.,23 lks. dist.,marked $\frac{1}{4}$ S 1 BT.

A pine,14 ins.diam.,bears S.58°05'E.,93 lks. dist.,marked $\frac{1}{4}$ S 6 BT.

45.44 Top of abrupt ascent,bears NW.and SE.

Descend over mountainous land.

CHAINS

- 79.84 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 1-6-7 and 12, marked on brass cap T 35 S on N. half,
 R 22 E S 1 in NW.,
 R 23 E S 6 in NE.,
 S 7 in SE. and S 12 in SW. quadrant, from which
 A pine, 24 ins. diam., bears N. 28° 13' E., 64 lks. dist., marked T 35 S R 23 E S 6 BT.
 A pine, 18 ins. diam., bears S. 13° 50' E., 117 lks. dist., marked T 35 S R 23 E S 7 BT.
 A pine, 30 ins. diam., bears S. 38° 30' W., 125 lks. dist., marked T 35 S R 22 E S 12 BT.
 A pine, 26 ins. diam., bears N. 52° 20' W., 121 lks. dist., marked T 35 S R 22 E S 1 BT.

Land, mountainous:

Soil, rocky and covered with boulders, 3rd. and 4th. rate.

Timber, yellow pine.

Mountainous land and land covered with heavy timber on 80.00 chs.

June 23: At this cor. I set off 23° 27' N. on decl. arc, and at Oh. 02m., p.m., 1.m.t., observe the sun on the meridian the resulting lat. is 37° 48' N.

South, bet. secs. 7 and 12.

Descend over rocky and mountainous land, through heavy timber.

- 35.50 Begin abrupt descent over broken sandstone ledges, bearing NW. and SE.

- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 12 on W. half, S 7 on E. half, from which
 A pine, 12 ins. diam., bears N. 76° 51' E., 46 lks. dist., marked $\frac{1}{4}$ S 7 BT.
 A pine, 8 ins. diam., bears N. 65° 45' W., 40 lks. dist.,

CHAINS

- marked $\frac{1}{4}$ S 12 BT.
- 40.60 Hollow, 100 ft. deep, course SE.
Abrupt ascent, over broken ledges.
- 43.20 Top of abrupt ascent, bears NW. and SE.
Descend over mountainous land.
- 80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 7-12-13 and 18, marked on brass cap, T 35 S on N. half,
R 22 E S 12 in NW.,
R 23 E S 7 in NE.,
S 18 in SE. and S 13 in SW. quadrant, from which
A cedar, 8 ins. diam., bears N. 55° 19' E., 22 lks. dist., marked T 35 S R 23 E S 7 BT.
A cedar, 18 ins. diam., bears S. 14° 52' E., 54 lks. dist., marked T 35 S R 23 E S 18 BT.
A pinon, 5 ins. diam., bears S. 65° 45' W., 20 lks. dist., marked T 35 S R 22 E S 13 BT.
A cedar, 10 ins. diam., bears N. 18° 53' W., 28 lks. dist., marked T 35 S R 22 E S 12 BT.
- Land, mountainous.
Soil, rocky, 3rd. and 4th. rate.
Timber, cedar, pinon and yellow pine.
Mountainous land or heavily timbered land on 80.00 chs.
-
- South, bet. secs. 13 and 18.
Descend over rocky and mountainous land, through heavy timber.
- 28.70 Begin abrupt descent over broken sandstone ledges, bearing NW. and SE.
- 33.80 Hollow, 50 ft. deep, course SE.
Abrupt ascent, over broken ledges.
- 36.20 Top of abrupt ascent, bears NW. and SE.
Descend over mountainous land.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the

CHAINS

ground, for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S $\overset{\vee}{13}$ on W. half,and S $\overset{\vee}{18}$ on E.half, from which

A pine,8 ins.diam.,bears N.62°00'W.,58 lks.

dist.,marked $\frac{1}{2}$ S $\overset{\vee}{13}$ BT.

A pine,11 ins.diam.,bears N.76°29'E.,132 lks.

dist.,marked $\frac{1}{4}$ S $\overset{\vee}{18}$ BT.

54.00 Leave pine timber, enter heavy cedar and pinon timber.

69.94 Wire fence, bears NE.and SW.

80.00 Set an iron post,3 ft.long,3 ins.dia.,24 ins.in the ground,for cor.of secs.13-18-19 and 24,marked on brass cap T 35 S on N.half,

R 22 E S $\overset{\vee}{13}$ in NW.,

R 23 E S $\overset{\vee}{18}$ in NE.,

S $\overset{\vee}{19}$ in SE.and S $\overset{\vee}{24}$ in SW.quadrant, from which

A cedar,12 ins.diam.,bears N.47°22'W.,128 lks.

dist.,marked T.35 S.,R.22 E S $\overset{\vee}{13}$ BT.

No other trees within limits and dig pits,18x18x12 ins. in each sec., $5\frac{1}{2}$ ft.dist.,and raise a mound of earth, 4 ft.base,2 ft.high,W.of cor.

Land, mountainous.

Soil, solid sandstone, covered with a layer of sandy loam,from 2 to 12 ins.thick and boulders,3rd.and 4th.rate.

Timber,yellow pine on 54.00 chs.,balance,cedar and pinon.

Mountainous land and heavily timbered land on 80.00 chs.

June 23, 1911

June 24: At 3h.02m.,a.m.,l.m.t.,I set off $37^{\circ}46'$ N.on lat.arc, $23^{\circ}27'$ N.on decl.arc,and determine a meridian with the solar at the cor.of secs.13-18-19 and 24.

Thence I run

South,bet.secs.19 and 24.

Descend over rocky and mountainous land,through dense undergrowth and scattering timber.

WEST BOUNDARY OF T. 35 S., R. 23 E.

CHAINS	
35.00	Begin abrupt descent over sandstone ledges, bearing NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. dia., in mound of earth and stone, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S $\sqrt{24}$ on W. half, and S $\sqrt{19}$ on E. half, from which <div style="margin-left: 40px;">A cedar, 18 ins. diam., bears N. $78^{\circ}22'$ E., 31 lks. dist., marked $\frac{1}{4}$ S $\sqrt{19}$ BT. A pinon, 8 ins. diam., bears S. $60^{\circ}20'$ W., 30 lks. dist., marked $\frac{1}{4}$ S $\sqrt{24}$ BT.</div>
	Note: On account of natural obstacles it is impossible to set this post over 14 ins. in the ground.
48.00	Hollow, 75 ft. deep, course SW. Ascend over broken ledges.
48.70	Wagon road, bears NE. and SW.
49.50	Wire fence, bears NW. and SE.
70.92	Begin abrupt ascent over sandstone ledges, bearing NE. and SW.
72.70	Top of ledges, 75 ft. high, bearing NE. and SW. Descend over rolling mesa.
80.00	Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 19-24-25 and 30, marked on brass cap, T. 35 S $\sqrt{}$ on N. half, <div style="margin-left: 40px;">R 22 E S $\sqrt{24}$ in NW., R 23 E S $\sqrt{19}$ in NE., S 30 in $\sqrt{}$ SE. and S 25 in SW. quadrant, from which A pinon, 5 ins. diam., bears N. $36^{\circ}29'$ E., 65 lks. dist., marked T 35 S R 23 E S $\sqrt{19}$ BT. A cedar, 8 ins. diam., bears S. $43^{\circ}20'$ E., 40 lks. dist., marked T 35 S R 23 E S $\sqrt{30}$ BT. A cedar, 6 ins. diam., bears S. $62^{\circ}45'$ W., 50 lks. dist., marked T 35 S R 22 E S $\sqrt{25}$ BT. A cedar, 8 ins. diam., bears N. $59^{\circ}10'$ W., 32 lks. dist., marked T 35 S R 22 E S $\sqrt{24}$ BT.</div>
	Land, mountainous and rolling.

CHAINS

Soil, solid sandstone covered with thin layer of sandy loam, from 4 to 6 ins. thick on mesa, balance broken sandstone ledges and boulders, 3rd. and 4th. rate.

Timber, scattering cedar and pinon.

Undergrowth, sage brush.

Mountainous land or land covered with dense undergrowth on 30.00 chs.

June 24: At this cor. I set off $23^{\circ}26'N.$ on decl. arc, and at 0h.02m., p.m., l.m.t., observe the sun on the meridian the resulting lat. is $37^{\circ}45'N.$

South bet. secs. 25 and 30.

Gradual descent over rocky land, through scattering timber and dense undergrowth.

2.25 Begin abrupt descent over broken sandstone ledges, bearing NE. and SW.

5.50 Wagon road, bears E. and W.

Begin descent over sandstone boulders.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 25 on W. half, S 30 on E. half, from which

A cedar, 10 ins. diam., bears S. $78^{\circ}30'W.$, 7 lks. dist., marked $\frac{1}{4}$ S 25 BT.

A pinon, 6 ins. diam., bears S. $31^{\circ}55'E.$, 35 lks. dist., marked $\frac{1}{4}$ S 30 BT.

69.20 Leave timber.

74.80 ~~Enter canyon of~~ Recapture Canyon, 150 ft. deep, course SW. Ascend.

80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 25-30-31 and 36, marked on brass cap, T 35 S on N. half,

R 22 E S 25 in NW.,

R 23 E S 30 in NE.,

S 31 in SE. and S 36 in SW. quadrant, from which

CHAINS

A pine, 30 ins. diam., bears S. 59° 25' W., 191 lks. dist., marked T 35 S R 22 E S 36 BT.

No other trees within limits; and dig pits, 18x18x12 ins. in each sec., 5½ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, rolling and mountainous.

Soil, a thin layer of sandy loam, from 6 to 12 ins. thick on solid sandstone on rolling portion, balance sandstone ledges, rocky land and boulders, 3rd. and 4th. rate.

Timber, scattering cedar and pinon on 69.20 chs.

Undergrowth, sage brush.

Mountainous land or land covered with dense undergrowth on 80.00 chs.

South, bet. secs. 31 and 36.

Ascend over rolling and rocky land, through dense undergrowth.

- 3.10 Wagon road, bears NE. and SW.
- 8.50 Enter heavy timber, bears NE. and SW.
- 10.40 Telephone line between Grayson and Monticello, bears NE. and SW.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 36 on W. half, S 31 on E. half, from which
- A cedar, 12 ins. diam., bears S. 85° 30' W., 13 lks. dist., marked ¼ S 36 BT.
- A cedar, 12 ins. diam., bears S. 80° 15' E., 4 lks. dist., marked ¼ S 31 BT.
- 42.00 Ridge, bears NE. and SW.
- Descend.
- 57.00 Hollow, 75 ft. deep, course SW.
- Ascend.
- 60.50 Spur, projects SW.

WEST BOUNDARY OF T.35 S.,R.23 E.

CHAINS

Descend.

80.00 Fall 36 lks.W.of the temp.cor.of Tp.35 S.,Rs.22 and 23 E. on the 7th.Stan.Par.South.

Note:

For description of cor.see Resurvey of the Seventh Standard Parallel South, book "B",of this survey.

Land,rolling.

Soil,rocky loam, 3rd.rate.

Timber,heavy cedar and pinon on 71.50 chs.

Undergrowth, sage brush.

Heavily timbered land or land covered with dense undergrowth on 80.00 chs.

June 24, 1911

BOUNDARIES OF T.35 S.,R.23 E.

Latitudes,departures and closing errors.

Line Designated	True Bearing	Distance	Latitudes		Departures	
			N.	S	E.	W.
		Chs.	Chs.	Chs.	Chs.	Chs.
E.Bdy.						
Bet. secs.1 & 6	S.0°02'E.	80.04		80.04 ✓	0.05 ✓	
" " 7 & 12	S.0°16'E.	80.02		80.02 ✓	0.37 ✓	
" " 13 & 18	S.0°03'W.	80.17		80.17 ✓		0.07 ✓
" " 19 & 24	S.0°20'W.	79.95		79.95 ✓		0.47 ✓
" " 25 & 30	S.0°12'W.	79.99		79.99 ✓		0.28 ✓
" " 31 & 36	S.0°09'E.	80.09		80.09 ✓	0.21 ✓	
7th.Stan.Par.S.	West	480.36				480.36 ✓
W.Bdy.	North	479.84	479.84 ✓			
N.Bdy.	East	479.44			479.44 ✓	
Convergency					0.56 ✓	
	Totals		479.84 ✓	480.26 ✓	480.63 ✓	481.18 ✓
				479.84 ✓		480.63 ✓
	Error in lat.and dep.			0.42 ✓		0.55 ✓

For General Description see Subdivisions of T.35 S., R.23 E.

Melvin H. Keist

U.S.Transitman

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FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of transition, see book "E1" T. 32 S., R. 26 E.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191____

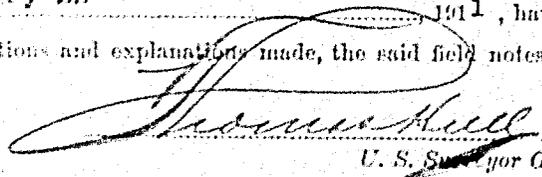


APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, March 19____, 1914

The foregoing field notes of the survey of _____ the west boundary of Township No. 35 South, Range No. 23 East of the Salt Lake Base and Meridian, Utah, _____

executed by _____ Helvin B. Hoist _____
under his special instructions dated _____ May 22 _____, 191____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.



U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.

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FEB 10 1912

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BOOK A-394
FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISIONS

of

TOWNSHIP NO. 35 SOUTH, RANGE NO. 23 EAST

Of the Salt Lake Base and Meridian,

In the State of Utah

EXECUTED BY

Helvia H. Heist, and Ben B. Andrews

In the capacity of U. S. ~~Surveyors~~^{Transitmen} under instructions dated May 22, 1911,
issued by the United States Surveyor General to govern surveys included in
Group No. 12, which were approved by the Commissioner of the General Land
Office, June 17, 1911, pursuant to authority contained in the Act of
Congress dated , 1911

Survey commenced June 18, 1911.

Survey completed July 7, 1911.

INDEX DIAGRAM.

Township 35 South, Range 23 East

6	66	5	48	4	36	3	34	2	13	1
63		65		47		35		33		12
7	62	8	46	9	32	10	23	11	11	12
61		60		45		32		22		10
18	59	17	44	16	30	15	21	14	9	13
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19	56	20	41	21	28	22	19	23	7	24
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51		50		38		26		16		3
31	49	32	37	33	25	34	15	35	2	36

Survey commenced June 18, 1911, and executed with a Young & Son light mountain transit, No. 8517, with solar attachment.

The horizontal limb is provided with double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the Surveyor General for Utah, June 1, 1911.

I examined the adjustments of the transit, and corrected the level and collimation errors; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows.

At the re-established stan. cor. of secs. 35 and 36, heretofore described, in latitude $37^{\circ}43'N.$, longitude $109^{\circ}24'W.$ I set off $37^{\circ}43'N.$, on lat. arc; $23^{\circ}25'N.$, on the decl. arc, and at 4h. 1m, p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

June 18, 1911

June 19: At 1h. 46m., a.m., l.m.t., I observed Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined on a peg driven in the ground, 5 chs. N. of my station. At 6 a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}28'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.4 ins. east of the mark determined by the solar.

At 8h. 1m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on lat. arc, $23^{\circ}26'N.$ on decl. arc, and mark a point in the meridian determined with the solar, by a cross on the stone

CHAINS

already set 5 chs. N. of any station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines position for meridian, respectively about $0^{\circ}21'$ west and $0^{\circ}16'$ east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h.30m., a.m., is $N.15^{\circ}40' W.$; the angle thus determined gives the mag. decl. $15^{\circ}40' E.$

I commence at the reestablished stan. cor. of secs. 35 and 36 heretofore described and run

$N.0^{\circ}10' W.$ bet, secs. 35 and 36

Gradual ascent over boulders and mountainous land, through heavy timber.

46.00 Set an iron post, 3 ft long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4} S \overset{\vee}{35}$ on W. half and $S \overset{\vee}{36}$ on E. half, from which

A pinon, 11 ins. diam., bears $S.18^{\circ}10' W.$, 39 lks. dist. marked $\frac{1}{4} S \overset{\vee}{35} BT.$

A cedar, 7 ins. diam., bears $N.50^{\circ}20' E.$, 51 lks. dist., marked $\frac{1}{4} S \overset{\vee}{36} BT.$

59.80 Begin abrupt ascent over nearly perpendicular sandstone ledges, bearing E. and W.

60.71 Top of sandstone ledges, 150 ft. high, bearing E. and W. Over rolling mesa, through heavy timber.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 25-26-35 and 36, marked on brass cap, T 35 S S 26 in NW.,

R 23 E S 25 in NE.,

S 36 in SE. and S 35 in SW. quadrant, from which

A cedar, 14 ins. diam., bears $N.67^{\circ}20' E.$, 38 lks. dist. marked T 35 S R 23 E S 25 BT.

A pinon, 5 ins. diam., bears $S.66^{\circ}50' E.$, 43 lks. dist., marked T 35 S R 23 E S 36 BT.

CHAINS

A cedar, 12 ins. diam., bears S. 57° 20' W., 35 lks. dist., marked T 35 S R 23 E S $\frac{1}{35}$ BT.

A pinon, 8 ins. diam., bears N. 2° 15' W., 37 lks. dist., marked T 35 S R 23 E S $\frac{1}{26}$ BT.

Land, mountainous on first 60.71 chs., soil, sandstone ledges covered with boulders, 4th. rate.

balance, rolling mesa, with thin layer of sandy loam on solid sandstone, 3rd. rate.

Timber, cedar and pinon.

Mountainous land or land covered with heavy timber on 80.00 chs.

June 19: At this cor. I set off 23° 26' N. on decl. arc, and at 8:01 a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 44' N.

East on a random line, bet. secs. 25 and 36.

40.00 Set temporary sec. cor.

30.02 Intersect Colorado Guide Meridian, 5 lks. S. of the cor. of secs. 25-30-31 and 36, heretofore described.

June 19, 1911

June 21: At 8:01 a.m., l.m.t., I set off 57° 44' N., on lat. arc, 23° 26' N. on decl. arc, and determine a meridian with the solar at the cor. of secs. 25-30-31 and 36, heretofore described on the Colorado Guide Meridian, the E. bdy. of the Tp.

Thence I run

N. 89° 53' W., on a true line,

bet. secs. 25 and 36.

Over rolling mesa, through heavy timber.

13.00 Begin abrupt descent over sandstone ledges, bearing N. and S.

17.00 Hollow, 100 ft. deep, course S.

Abrupt ascent over sandstone ledges.

27.00 Top of ledges, bearing NE. and SW. Over rolling mesa.

37.50 Begin abrupt descent over sandstone ledges, bearing N. and S.

40.01 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the

SUBDIVISIONS OF T.35 S., R.23 E.

CHAINS

ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{2}$ S 25 on N.
half, S 36 on S. half, from which

A cedar, 8 ins. dia., bears S. 39° 20' E., 31 lks. dist.,
marked $\frac{1}{4}$ S 36 BT.

A cedar, 5 ins. dia., bears N. 48° 10' W., 35 lks. dist.,
marked $\frac{1}{4}$ S 25 BT.

This cor. is set at the foot of a perpendicular ledge,
40 ft. high, bearing N. and S.

Descend abruptly over broken sandstone ledges.

42.80 Hollow, 100 ft. deep, course S.

Abrupt ascent over sandstone ledges.

51.00 Top of abrupt ascent, bears NW. and SE.

Over level land.

54.25 Begin abrupt descent over sandstone ledges, bearing
NW. and SE.

61.00 Hollow, 100 ft. deep, course SE., Indian Canyon.

Abrupt ascent over broken sandstone ledges.

76.50 Top of ledges, bearing NW. and SE.

Over rolling mesa.

80.02 The cor. of secs. 25-26-35 and 36.

Land, nearly level mesas and mountainous.

The soil on the mesas is a sandy loam, about 6 ins.
thick on solid sandstone, the balance solid sandstone
ledges and boulders.

Timber, cedar and pinon.

Mountainous land or heavily timbered land on 80.00 chs.

June 21: At this cor. I set off 23° 27' N. on decl. arc, and
at Oh. Alm., p.m., 1.m.t., observe the sun on the meridian,
the resulting lat. is 37° 44' N.

N. 0° 11' E., bet. secs. 25 and 26.

Over rolling mesa, through heavy cedar and pinon timber.

10.56 Begin abrupt descent over sandstone ledges, bearing
NW. and SE.

21.20 Hollow, 75 ft. deep, course SE., Indian Canyon.

SUBDIVISIONS OF T. 35 S., R. 23 E.

CHAINS	
	Abrupt ascent.
40.00	<p>Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S \checkmark 26 on W. half, S \checkmark 25 on E. half, from which</p> <p>A pinon, 6 ins. diam., bears S. $52^{\circ}15'$ E., 42 lks. dist., marked $\frac{1}{4}$ S \checkmark 25 BT.</p> <p>A pinon, 7 ins. diam., bears N. $83^{\circ}45'$ W., $90\frac{1}{2}$ lks. dist., marked $\frac{1}{4}$ S \checkmark 26 BT.</p>
46.10	Begin abrupt ascent over sandstone ledges, bearing NW. and SE.
52.15	Top of abrupt ascent, bears NW. and SE. Over level mesa, through heavy timber.
63.00	Begin abrupt descent over sandstone ledges, bearing NW. and SE.
70.00	Hollow, 50 ft. deep, course SE. Abrupt ascent.
75.00	Top of abrupt ascent, bears NW. and SE. Gradual ascent over rolling land.
80.00	<p>Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 23-24-25 and 26, marked on brass cap T 35 S S \checkmark 23 in NW., R 23 E S \checkmark 24 in NE., S 25 in \checkmark SE. and S \checkmark 26 in SW. quadrant, from which</p> <p>A pinon, 5 ins. diam., bears N. $56^{\circ}30'$ E., 45 lks. dist., marked T 35 S R 23 E S \checkmark 24 BT.</p> <p>A pinon, 6 ins. diam., bears S. $56^{\circ}20'$ E., 47 lks. dist., marked T 35 S R 23 E S \checkmark 25 BT.</p> <p>A pinon, 4 ins. diam., bears S. $34^{\circ}15'$ W., 89 lks. dist., marked T 35 S R 23 E S \checkmark 26 BT.</p> <p>A pinon, 5 ins. diam., bears N. $52^{\circ}35'$ W., $68\frac{1}{2}$ lks. dist., marked T 35 S R 23 E S \checkmark 23 BT.</p> <p>Land, rolling and level mesas and mountainous. Soil, sandy loam from 4 to 8 ins. deep on mesas, 2nd. rate, balance, solid sandstone ledges, rocky and boulders, 3rd. and 4th. rate. Timber, cedar and pinon.</p>

SUBDIVISIONS OF T. 35 S., R. 23 E.

CHAINS

Mountainous land or heavily timbered land on 80.00 chs.

June 21, 1911

June 22: At 8h.02m., a.m., l.m.t., I set off $37^{\circ}45'N.$ on lat. arc, $23^{\circ}28'N.$ on decl. arc, and determine a meridian with the solar at the cor. of secs. 23-24-25 and 26.

Thence I run

$S.89^{\circ}58'E.$, on a random line, bet. secs. 24 and 25.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.10 Intersect the Colorado Guide Meridian, 5 lks. N. of the cor. of secs. 19-24-25 and 30, heretofore described.

Thence I run

$N.89^{\circ}56'W.$, on a true line,

Bet. secs. 24 and 25.

Ascend over rocky and mountainous land, through heavy timber.

25.35 Rim on west side of Long Canyon, bears NW. and SE.

Over rolling mesa, through heavy timber.

40.05 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 24 on N. half, S 25 on S. half, from which

A pinon, 5 ins. diam., bears $S.7^{\circ}35'W.$, $23\frac{1}{2}$ lks. dist., marked $\frac{1}{4}$ S 35 BT.

A pinon, 6 ins. diam., bears $N.13^{\circ}25'E.$, 22 lks. dist., marked $\frac{1}{4}$ S 24 BT.

80.10 The cor. of secs. 23-24-25 and 26.

Land, mountainous and rolling.

Soil, solid sandstone ledges, boulders and rocky land on first 25.35 chs., 3rd. and 4th. rate; balance, a sandy loam from 6 to 10 ins. deep, on solid sandstone, 3rd. rate.

Timber, heavy cedar and pinon.

Mountainous land or heavily timbered land on 80.10 chs.

June 22: At this cor. I set off $23^{\circ}27'N.$ on decl. arc, and at 8h.02m. l.p.m. l.m.t. observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N.$

SUBDIVISIONS OF T. 35 S., R. 23 E.

CHAINS	
	<p>N. 0°19'E., bet. secs. 23 and 24.</p> <p>Gradual ascent over rolling mesa, through heavy timber.</p>
40.00	<p>Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{2}$ S $\overset{\vee}{23}$ on W. half, and S $\overset{\vee}{24}$ on E. half, from which</p>
	<p>A pinon, 5 ins. diam., bears S. 68°30'W., 46$\frac{1}{2}$ lks. dist., marked $\frac{1}{4}$ S $\overset{\vee}{23}$ BT.</p>
	<p>A cedar, 5 ins. diam., bears N. 68°50'E., 58$\frac{1}{2}$ lks. dist., marked $\frac{1}{4}$ S $\overset{\vee}{24}$ BT.</p>
50.79	<p>Begin abrupt descent over sandstone ledges, bearing NW. and SE., the west rim of Long Canyon.</p>
59.00	<p>Long Canyon, 100 ft. deep, course SE.</p> <p>Abrupt ascent.</p>
80.00	<p>Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 13-14-23 and 24, marked on brass cap, T 35 S S $\overset{\vee}{14}$ in NW.,</p>
	<p>R 23 E S $\overset{\vee}{13}$ in NE.,</p> <p>S $\overset{\vee}{24}$ in SE. and S $\overset{\vee}{23}$ in SW. quadrant, from which</p>
	<p>A pinon, 8 ins. diam., bears N. 33°43'E., 36 lks. dist., marked T 35 S R 23 E S $\overset{\vee}{13}$ BT.</p>
	<p>A pinon, 5 ins. diam., bears S. 30°50'E., 90 lks. dist., marked T 35 S R 23 E S $\overset{\vee}{24}$ BT.</p>
	<p>A cedar, 6 ins. diam., bears S. 59°25'W., 195 lks. dist., marked T 35 S R 23 E S $\overset{\vee}{23}$ BT.</p>
	<p>A pinon, 6 ins. diam., bears N. 53°40'W., 61 lks. dist., marked T 35 S R 23 E S $\overset{\vee}{14}$ BT.</p>
	<p>Land, rolling and mountainous.</p>
	<p>Soil, sandy loam from 6 to 12 ins. deep, on solid sandstone for first 50.79 chs., 3rd. rate; balance, rocky, sandstone ledges and boulders, 3rd. and 4th. rate.</p>
	<p>Timber, heavy cedar and pinon.</p>
	<p>Mountainous land or heavily timbered land on 80.00 chs.</p>
	<p>June 22, 1911</p>

June 23: At 8h. 02m., a.m., l.m.t., I set off 37°46'N., on lat. arc, 23°28'N. on decl. arc, and determine a meridian with the solar at the cor. of secs. 13-14-23 and 24.

CHAINS

- Thence I run
S. $89^{\circ}56'$ E., on a random line, bet. secs. 13 and 24.
- 40.00 Set temp. $\frac{1}{2}$ sec. cor.
- 80.00 Intersect Colorado Guide Meridian, 3 lks. S. of the cor. of
secs. 13-14-19 and 24, heretofore described.
- Thence I run
N. $89^{\circ}57'$ W., on a true line,
Bet. secs. 13 and 24.
over rolling mesa, through dense undergrowth.
- 15.00 Enter heavy timber, bears NW. and SE.
- 32.88 Begin abrupt descent over sandstone ledges, bearing
NW. and SE.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the
ground, for $\frac{1}{2}$ sec. cor. marked on brass cap, $\frac{1}{4}$ S 13 on N.
half, S 24 on S. half, from which
A pinon, 14 ins. diam., bears S. $10^{\circ}15'$ W., 246 lks.
dist., marked $\frac{1}{2}$ S 24 BT.
A cedar, 7 ins. diam., bears N. $42^{\circ}20'$ E., 55 lks.
dist., marked $\frac{1}{2}$ S 13 BT.
- 46.00 Hollow, 100 ft. deep, course S.
Abrupt ascent along steep south slope.
- 80.00 The cor. of secs. 13-14-23 and 24.
Land, rolling and mountainous.
Soil, sandy loam from 6 to 12 ins. deep on first 32.88 chs.
2nd. rate; balance, sandstone ledges, rocky and
boulders, 3rd. and 4th. rate.
Timber, heavy cedar and pinon on last 65.00 chs.
Undergrowth, sage brush.
Mountainous land, heavily timbered land or land covered
with dense undergrowth on 80.00 chs.
June 23: At this cor. I set off $23^{\circ}27'$ N. on decl. arc, and
at 6h. 02m., a.m., l.m.t., observe the sun on the meridian,
the resulting lat. is $37^{\circ}46'$ N.

CHAINS

N.0°02'E., bet. secs.13 and 14.

Abrupt ascent over broken sandstone ledges, through heavy timber.

3.14 Top of abrupt ascent, bears E. and W.

Gradual ascent over rolling mesa.

11.00 Leave timber, bears E. and W.

Enter dense undergrowth.

21.00 Enter heavy timber, bears E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked on brass cap, $\frac{1}{2}$ S 14 on W. half, S 13[✓] on E. half, from which

A pinon, 6 ins. diam., bears S.17°25'W., 10 lks. dist., marked $\frac{1}{4}$ S 14 BT.

A pinon, 5 ins. diam., bears S.52°10'E., 33 lks. dist., marked $\frac{1}{4}$ S 13[✓] BT.

66.00 Begin abrupt descent, bears NW. and SE.

68.00 Hollow, 50 ft. deep, course SE.

Ascent abruptly.

70.50 Top of abrupt ascent, bears NW. and SE.

Over rolling land.

Leave timber, bears E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 11-12-13 and 14, marked on brass cap T 35 S S 11[✓] in NW.,

R 23 E S 12[✓] in NE.,

S 13[✓] in SE. and S 14[✓] in SW. quadrant, from which

A pinon, 6 ins. diam., bears N.83°20'E., 136 lks. dist., marked T 35 S R 23 E S 12[✓] BT.

A cedar, 5 ins. diam., bears S.56°50'E., 158 lks. dist., marked T 35 S R 23 E S 13[✓] BT.

A cedar, 7 ins. diam., bears S.40°10'W., 173 lks. dist., marked T 35 S R 23 E S 14[✓] BT.

A pinon, 4 ins. diam., bears N.34°15'W., 335 lks. dist., marked T 35 S R 23 E S 11[✓] BT.

Land, rolling and mountainous.

Soil, broken sandstone ledges, rocky and boulders, on

SUBDIVISIONS OF T.35 S.,R.23 E.

<p>CHAINS</p>	<p>7764 chs.; balance, sandy loam, from 8 to 15 ins. deep, 2nd. rate. Timber, cedar and pinon. Undergrowth, sage brush. Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.00 chs.</p>
<p>40.00</p>	<p>S. 89° 57' E., on a random line, bet. secs. 12 and 13. Set temp. $\frac{1}{4}$ sec. cor.</p>
<p>80.06</p>	<p>Intersect Colorado Guide Meridian, 9 lks. S. of the cor. of secs. 7-12-13 and 18, heretofore described. Thence I run S. 89° 59' W., on a true line, Bet. secs. 12 and 13. Over level land in bottom of Dodge Canyon, through dense undergrowth.</p>
<p>4.90</p>	<p>Wash, 50 lks. wide, 10 ft. deep, course SE.</p>
<p>13.00</p>	<p>Begin abrupt ascent over sandstone ledges, bearing NW. and SE.</p>
<p>17.60</p>	<p>Top of abrupt ascent, 100 ft. above canyon, bears NW. and SE. Ascend over rolling land, through dense undergrowth, and scattering timber.</p>
<p>40.03</p>	<p>Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 12 on N. half, S 13 on S. half, dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth, 3$\frac{1}{2}$ ft. base, 1$\frac{1}{2}$ ft. high, N. of cor.</p>
<p>80.06</p>	<p>The cor. of secs. 11-12-13 and 14. Land, level, mountainous and rolling. Soil, rich bottom land of great depth on first 13.00 chs., 1st. rate; sandstone ledges, 4th. rate on next 4.60 chs.; balance, sandy loam from 12 to 24 ins. deep on solid sandstone, 2nd. rate. Timber, cedar and pinon. Undergrowth, sage brush and oak brush.</p>

CHAINS

Mountainous land or land covered with dense undergrowth
on 80.06 chs.

June 23, 1911

June 24: At 8h.02m., a.m., l.m.t., I set off $37^{\circ}47'$ N. on lat.
arc, $23^{\circ}27'$ N. on decl. arc, and determine a meridian with
the solar at the cor. of secs. 11-12-13 and 14.

Thence I run

N. $0^{\circ}17'$ W., bet. secs. 11 and 12.

Gradual ascent over rolling land, through dense under-
growth.

10.00 Wire fence, bears N. $9^{\circ}30'$ E., and S. $9^{\circ}50'$ W.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{2}$ S 11 on W.
half, S 12 on E. half; dig pits, 18x18x12 ins., N. and S. of
post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base,
 $1\frac{1}{2}$ ft. high, W. of cor.

Begin descent.

42.80 Hollow, 30 ft. deep, course SE.

Gradual ascent.

61.94 Wire fence, bears E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the
ground, for cor. of secs. 1-2-11 and 12, marked on brass cap
T 35 S S $2^{\sqrt{}}$ in NW.,
R 23 E S 1 in NE.,
S 12 in SE. and S 11 in SW. quadrant, from which
a cedar, 24 ins. diam., bears N. $56^{\circ}10'$ E., 273 lks. dist.
marked T 35 S R 23 E S 1 BT.

No other trees within limits and raise a mound of stone,
2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land, rolling.

Soil, sandy loam over 24 ins. deep, sloping south, 1st. rate.

No timber.

Undergrowth oak brush and sage brush.

Land covered with dense undergrowth on 80.00 chs.

CHAINS

N.89°59'E., on a random line, bet. secs.1 and 12.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.96 Intersect Colorado Guide Meridian, 19 lks. N. of the cor. of secs.1-6-7 and 12, heretofore described.

Thence I run

N.89°53'W., on a true line,

Bet. secs.1 and 12.

Descend over rocky and mountainous land, through heavy cedar and pinon timber.

8.00 Hollow, 50 ft. deep, course SE.

Abrupt ascent.

10.00 Top of abrupt ascent, bears NW. and SE.

Over rolling land.

23.00 Leave timber, bears NW. and SE.

Enter dense undergrowth.

27.00 Begin abrupt descent over sandstone ledges, bearing NW. and SE.

28.00 Dodge Canyon, 60 ft. deep, course SE.

Abrupt ascent over sandstone ledges.

30.75 Top of abrupt ascent, bears NE. and SW.

Descend along north side of hollow draining E., over broken sandstone ledges.

39.98 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 1° on N. half, S 12° on S. half, dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

61.00 Hollow, 60 ft. deep, course SE.

Abrupt ascent.

67.00 Top of abrupt ascent, bears NW. and SE.

Over rolling land.

Enter heavy timber, bears NW. and SE.

76.00 Leave timber, bears NW. and SE.

79.96 The cor. of secs.1-2-11 and 12.

Land, mountainous and rolling.

Soil, broken sandstone ledges 4th. rate on mountainous

CHAINS	
	<p>balance, sandy loam from 6 to 8 ins. deep, 3rd. rate. Timber, cedar and pinon. Undergrowth, sage brush and oak brush. Mountainous land, heavily timbered land or land covered with dense undergrowth on 79.96 chs. June 24: At this cor. I set off $23^{\circ}26'N.$ on decl. arc, and at 0h.02m., p.m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}48'N.$</p>
	<p>N. $0^{\circ}03'W.$, on a random line, bet. secs. 1 and 2.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.79	<p>Intersect N. bdy. of Tp., 28 lks. W. of the cor. of secs. 1-2-35 and 36, which is a porphyry stone, 5x10x3 ins. above ground, marked and witnessed as described by the surveyor general.</p> <p>Thence I run</p> <p style="text-align: center;">$S. 0^{\circ}09'W.$, on a ^{tree} random line, Bet. secs. 1 and 2.</p> <p>Gradual descent over rolling land, through dense undergrowth.</p>
25.60	Old County road, bears NE. and SW.
33.40	Telephone line between Grayson and Monticello, bears NE. and SW.
39.79	<p>Set and iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 2° on W. half, S 1° on E. half, dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.</p>
63.80	Enter heavy timber, bears NW. and SE.
70.00	<p>Hollow, 40 ft. deep, course SE. Leave timber, bears NW. and SE. Ascend over rolling land.</p>
79.79	<p>The cor. of secs. 1-2-11 and 12. Land, rolling. Soil, sandy loam from 12 to 18 ins. deep, 1st. rate.</p>

CHAINS

Timber, cedar and pinon.

Undergrowth, sage brush and oak brush.

Land covered with dense undergrowth or heavily timbered land on 79.79 chs.

June 24, 1911

Chas B Andrews
U.S. Transitman

Survey commenced, June 25, 1911, and executed with the instrument described in book "A", of this survey.

I examine the adjustments of the transit and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At the re-established stan. cor. of secs. 34 and 35, heretofore described on the 7th. Stan. Par. South, in approximate latitude $37^{\circ}43'N.$, longitude $109^{\circ}25'W.$, I set off $37^{\circ}43'N.$ on lat. arc, $23^{\circ}26'N.$ on decl. arc, and at 4h.02m., p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

June 25, 1911

June 26: At 1h.18.5m., a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions and mark a point in the line thus determined, on a peg, driven in the ground, 5 chs. N. of my station.

At 6 a.m., I lay off the azimuth of Polaris, $1^{\circ}28'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.4 ins. east of the mark determined by the solar.

At 8h.02m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on lat. arc, $23^{\circ}24'N.$ on decl. arc, and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the

CHAINS

meridian established by the Polaris observation.
 The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about 0'21" west and 0'16" east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h.30m., a.m., is N.15°40'W., the angle thus determined gives the mag. decl. 15°40'E.

From the stan. cor., already described, I run
 N.0°10'W., bet. secs. 34 and 35.

Over rolling mesa, through heavy timber.

- 28.73 Begin abrupt descent over sandstone ledges, bearing NW. and SE.
- 36.00 Foot of ledges, 75 ft. high, bearing NW. and SE.
Abrupt descent.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 34 on W. half, S 35 on E. half, from which
 - A pinon, 6 ins. diam., bears N. 85°25'E., 36 lks. dist., marked $\frac{1}{4}$ S 35 BT.
 - A pinon, 6 ins. diam., bears S. 82°09'W., 21 lks. dist., marked $\frac{1}{4}$ S 34 BT.
- 41.20 Hollow, 150 ft. deep, course SE.
Ascend along rocky east slope.
- 63.00 Begin abrupt ascent over sandstone ledges, bearing NE. and SW.
- 67.80 Top of ledges, 50 ft. high, bearing NE. and SW.
Over top of level, rocky spur, projecting E.
- 70.00 Begin abrupt descent over sandstone ledges, bearing NW. and SE.
- 78.50 Devil's Canyon, 150 ft. deep, course SE.
Abrupt ascent.
- 80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 26-27-34 and 35, marked on brass

SUBDIVISIONS OF T. 35 S., R. 23 E.

CHAINS

cap, T 35 S S 27 in NW.,

R 23 E S 26 in NE.,

S 35 in SE. and S 34 in SW. quadrant, from which

A pinon, 14 ins. diam., bears N. 62° 04' E., 112 lks. dist.
marked T 35 S R 23 E S 26 BT.

A cedar, 5 ins. diam., bears S. 32° 02' E., 26 lks. dist.,
marked T 35 S R 23 E S 35 BT.

A cedar, 7 ins. diam., bears S. 57° 30' W., 23 lks. dist.,
marked T 35 S R 23 E S 34 BT.

A cedar, 11 ins. diam., bears N. 56° 58' W., 50 lks. dist.,
marked T 35 S R 23 E S 27 BT.

Land, rolling and mountainous.

Soil, sandy loam from 6 to 10 ins. deep on first 28.73 chs.
3rd. rate; balance, solid and broken sandstone ledges,
rocky land and boulders, 3rd. and 4th. rate.

Timber, heavy cedar and timber.

Mountainous land or land heavily timbered on 80.00 chs.

June 26: At this cor. I set off 23° 24' N. on decl. arc, and
at 0h. 02m., p.m., 1.m.t., observe the sun on the meridian
the resulting lat. is 37° 44' N.

East, on a random line bet. secs. 26 and 35.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.94 Intersect N. and S. line, 5 lks. N. of the cor. of secs.
25-26-35 and 36.

Thence I run

N. 89° 58' W., on a true line,

Bet. secs. 26 and 35.

Gradual descent over rolling mesa, through heavy timber.

29.74 Begin abrupt descent over sandstone ledges, bearing
NW. and SE.

36.44 Hollow, 75 ft. deep, course S.

Ascend over broken land.

39.97 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 26 on N.
half, S 35 on S. half, from which

SUBDIVISIONS OF T.35 S., R.23 E.

CHAINS

A pinon, 14 ins. diam., bears N. 73° 06' W., 47 lks. dist., marked $\frac{1}{4}$ S 26 BT.

A cedar, 6 ins. diam., bears S. 12° 07' E., 42 lks. dist. marked $\frac{1}{4}$ S 35 BT.

This cor. is set on top of spur, projecting S.

Descend along broken south slope.

79.94

The cor. of secs. 26-27-34 and 35.

Land, rolling and mountainous.

Soil, sandy loam, from 4 to 10 ins. deep, 2nd. rate on first 29.74 chs.; balance, broken ledges, rocky and boulders, 3rd. and 4th. rate.

Timber, cedar and pinon.

Mountainous land or land heavily timbered on 79.94 chs.

June 26, 1911

June 27: At 8h. 03m., a.m., l.m.t., I set off 37° 44' N. on lat. arc, 23° 23' W. on decl. arc, and determine a meridian with the solar at the cor. of secs. 26-27-34 and 35.

Thence I run

N. 0° 11' E., bet. secs. 26 and 27.

Ascend over rocky and mountainous land, through heavy timber.

33.00

Begin abrupt ascent over sandstone ledges, bearing NW. and SE.

36.40

Top of ledges, 75 ft. high, bearing NW. and SE.

Over rolling mesa.

40.00

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 27 on W. half, S 26 on E. half, from which

A pinon, 12 ins. diam., bears S. 40° 33' W., 45 lks. dist., marked $\frac{1}{4}$ S 27 BT.

A cedar, 15 ins. diam., bears S. 34° 24' E., 35 lks. dist., marked $\frac{1}{4}$ S 26 BT.

66.11

Begin abrupt descent over sandstone ledges, bearing NW. and SE.

74.30

Indian Canyon, 100 ft. deep, course SE.

CHAINS

Abrupt ascent.

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for cor. of secs. 22-23-26^{1/2} and 27, marked on brass cap, T 35 S S 22^{1/2} in NW.,

R 23 E S 23^{1/2} in NE.,

S 26^{1/2} in SE. and S 27^{1/2} in SW. quadrant, from which

A pinon, 8 ins. diam., bears N. 52° 10' E., 42 lks. dist. marked T 35 S R 23 E S 23^{1/2} BT.

A cedar, 8 ins. diam., bears S. 82° 15' E., 28 lks. dist., marked T 35 S R 23 E S 26^{1/2} BT.

A pinon, 10 ins. diam., bears S. 87° 52' W., 25 lks. dist., marked T 35 S R 23 E S 27^{1/2} BT.

A pinon, 12 ins. diam., bears N. 31° 15' W., 38 lks. dist., marked T 35 S R 23 E S 22^{1/2} BT.

Land, mountainous and rolling.

Soil, sandy loam, from 4 to 12 ins. deep, on mesa, 3rd. rate; balance, broken ledges and rocky, 3rd. and 4th. rate.

Timber, heavy cedar and pinon.

Mountainous land or land heavily timbered on 80.00 chs.

June 27: At this cor. I set off 23° 22' N. on decl. arc, and at Oh. 03^m. p.m., 1. m. t., observe the sun on the meridian, the resulting lat. is 37° 45' N.

S. 89° 58' E., on a random line, bet. secs. 23 and 26.

40.00

Set temp. $\frac{1}{4}$ sec. cor.

79.86

Intersect N. and S. line, 7 lks. S. of the cor. of secs. 23-24-25 and 26.

Thence I run

S. 89° 59' W., on a true line,

Bet. secs. 23 and 26.

Over rolling mesa, through heavy timber.

1.15

Begin abrupt descent over sandstone ledges, bearing NW. and SE.

3.35

Hollow, 50 ft. deep, course SE.

Abrupt ascent.

CHAINS

- 6.80 Top of abrupt ascent, bears NW. and SE.
Over rolling mesa.
- 30.36 Begin abrupt descent over sandstone ledges, bearing NW.
and SE.
- 39.93 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 23^{\vee} on N.
half, S 26^{\vee} on S. half, from which
- A pinon, 6 ins. diam., bears N. $14^{\circ}28'$ E., 40 lks. dist.,
marked $\frac{1}{4}$ S 23^{\vee} BT.
- A pinon, 7 ins. diam., bears S. $72^{\circ}45'$ E., 31 lks. dist.,
marked $\frac{1}{4}$ S 26^{\vee} BT.
- 41.10 Hollow, 100 ft. deep, course SE.
Abrupt ascent.
- 43.01 Top of abrupt ascent, bears NW. and SE.
Over rolling mesa.
- 53.00 Begin abrupt descent, bears NW. and SE.
- 56.00 Hollow, 50 ft. deep, course SE.
Abrupt ascent.
- 58.00 Top of abrupt ascent, bears N. and S.
Over rolling mesa.
- 64.40 Begin abrupt descent along broken south slope, bearing
NW. and SE.
- 79.86 The cor. of secs. 22-23-26 and 27.
Land, rolling and mountainous.
Soil, sandy loam, from 4 to 10 ins. deep, on mesa, 3rd. rate;
balance, broken ledges and rock, 4th. rate.
Timber, heavy cedar and pinon.
Mountainous land or heavily timbered land on 79.86 chs.

June 27, 1911

June 28: At 8h. $03^m.$, a.m., l.m.t., I set off $37^{\vee}45'$ N. on
lat. arc, $23^{\circ}20'$ N. on decl. arc, and determine a meridian
with the solar at the cor. of secs. 22-23-26 and 27.
Thence I run

N. $0^{\circ}19'$ E., bet. secs. 22 and 23.

49.153

Ascent over rocky and mountainous land, through heavy timber.

49.27 Top of abrupt ascent, bears NW. and SE.

Gradual ascent over rolling mesa.

49.30 Set an iron post, 3 ft. long, 1 ins. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22 on W. half, S 23 on E. half, from which

A pinon, 6 ins. dia., bears N. 11 15' W., 18 lks. dist., marked $\frac{1}{4}$ S 22 RT.

A pinon, 10 ins. dia., bears S. 59° 11' E., 23 lks. dist., marked $\frac{1}{4}$ S 23 RT.

49.33 Leave timber, bears E. and W. Enter dense undergrowth.

49.36 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 14-15-22 and 23, marked on brass cap, S 45 S S 15 in NW.,

R 24 S S 14 in NE.,

S 23 in SE. and S 22 in SW. quadrant, dig pits, 18x18x12 ins., in each sec., 5 $\frac{1}{2}$ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, $\frac{1}{4}$ of cor.

Land, mountainous and rolling.

Soil, broken ledges and rocky on first 4.87 chs., 3rd. and 4th. rate; balance, sandy loam, from 6 to 16 ins. deep, 2nd. and 3rd. rate.

Timber, heavy cedar and pinon on 49.36 chs.

Undergrowth, sage brush.

Mountainous land, land covered with dense undergrowth or heavily timbered land on 49.36 chs.

June 28: At this cor. I set off 23° 19' N. on decl. arc, and at 9.03 a. m., l. s. t., observe the sun on the meridian the resulting lat. is 37° 45' N.

S. 29° 49' E. on a random line, bet. secs. 14 and 23.

49.38 Set two $\frac{1}{4}$ sec. cor.

49.39 Intersect E. and W. line, 7 lks. N. of the cor. of secs. 14-15-22 and 23.

Traverse I run

SUBDIVISIONS OF T.35 S.,R.23 E.

CHAINS

N.89°58'W., on a true line,
Bet. secs. 14 and 23.

Descend over rocky and mountainous land, through dense undergrowth.

29.28 Long Canyon, 150 ft. deep, course SE.
Abrupt ascent,

34.39 Top of abrupt ascent, bears NW. and SE.
Over rolling mesa.

39.94 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 14 on N. half, S 23 on S. half, from which

A pinon, 8 ins. diam., bears S.9°30'W. 146 lks. dist., marked $\frac{1}{4}$ S 23 BT.

A pinon, 6 ins. diam., bears N.10°50'E. 35 lks. dist., marked $\frac{1}{4}$ S 14 BT.

Gradual ascent over rolling mesa, through dense undergrowth.

79.88 The cor. of secs. 14-15-22 and 23.

Land, rolling and mountainous.

Soil, rocky and broken ledges, 4th. rate on first 34.39 chs.; balance, rolling mesa, sandy loam, from 10 to 15 ins. deep, 1st. rate

Timber, scattering cedar and pinon on first 40.00 chs.
Undergrowth, sage brush.

Mountainous land, land covered with dense undergrowth or scattering timber on 79.88 chs.

June 28; 1911

June 29: At 8h⁰³m., a.m., l.m.t., I set off 37°46'N. on lat. arc. 23°18'N. on decl. arc; and determine a meridian with the solar at the cor. of secs. 14-15-22 and 23.

Thence I run

N.0°02'E., bet. secs. 14 and 15.

Over rolling mesa, through dense undergrowth.

5.88 Old county road, bears E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the

CHAINS

ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 15 on W. half, S 14 on E. half, from which

A pinon, 9 ins. diam., bears N. $32^{\circ}54'$ W. 45 lks. dist., marked $\frac{1}{4}$ S 15 BT.

No other trees within limits; dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

- 42.10 Top of ledges, bears E. and W.
Abrupt descent over sandstone ledges.
- 49.60 Long Canyon, 125 ft. deep, course E.
Abrupt ascent over sandstone ledges.
- 53.10 Top of ledges, bears E. and W.
- 54.00 Enter heavy timber, bears E. and W.
Gradual ascent.
- 76.30 Leave heavy timber, enter dense undergrowth, bears E. and W.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 10-11-14 and 15, marked on brass cap, T. 35 S. S 10 in NW.,
R 25 S S 11 in NE.,
S 14 in SE. and S 15 in SW. quadrant, dig pits, 18x18x12 ins., in each sec., $5\frac{1}{2}$ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.
- Land, mountainsous and rolling.
- Soil, sandy loam, from 10 to 15 ins. deep, first 42.10 chs. 1st. rate; broken and rocky on 34.20 chs 4th. rate; balance, brown sandy loam, from 15 to 20 ins. deep 1st. rate.
- Timber, heavy pinon and cedar, on 22.30 chs.
- Undergrowth, sage brush, first 54.00 chs. and last 3.70 chs.
- Mountainous land, land covered with dense undergrowth or heavy timbered land, on 80.00 chs.

S. $89^{\circ}58'$ E, on a random line, bet. secs. 11 and 14.

- 40.00 Set temp. $\frac{1}{2}$ sec. cor.
- 79.92 Intersect N. and S. line, 9 lks. S. of the cor. of secs. 11-12-13 and 14.
Thence I run

CHAINS

S. 89°58'W., on a true line,

Bet. secs. 11 and 14.

Gradual ascent over rolling land, through dense undergrowth.

3.45 Wire fence, bears NE. and SW.

Enter cultivated land, bears N. and S., belonging to K.S. Jones and K. Jones of Monticello.

27.50 Leave cultivated land, bears N. and S.

27.81 Old County road, bears N. and S.

29.41 Enter heavy timber, bears N. and S.

36.90 Abrupt descent over sandstone ledges, bears N. and S.

39.96 Set an iron post, 3 ft. long, 1 in. dia, ^{26 ins.} in mound of earth and stone, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 11 on N. half, S 14 on S. half, from which

A pinon, 6 ins. diam., bears N. 54°10'E. 69 lks. dist., marked $\frac{1}{4}$ S 11 BT.

A pinon, 10 ins. diam., bears S. 65°47'W. 236 lks. dist., marked $\frac{1}{4}$ S 14 BT.

42.30 Ravine, 100 ft. deep, drains S. into Long Canyon. Abrupt ascent.

46.80 Top of ledges, bears N. and S. Gradual ascent.

73.30 Leave heavy timber, bears N. and S. enter dense undergrowth.

79.92 The cor. of secs. 10-11-14 and 15.

Land, rolling and mountainous.

Soil, sandy loam, from 15 to 20 ins. deep, first 36.90 chs.

1st. rate; balance, broken ledges and rocky, 4th rate.

Timber, heavy pinon and cedar, on 43.89 chs.

Undergrowth, sage brush.

Cultivated land on 24.05 chs.

Mountainous land, land covered with dense undergrowth or heavy timbered land, on 55.87 chs.

June 29: At this cor. I set off 23°17'N. on decl. arc, and at 01.03 p.m., 1. m. t., observe the sun on the meridian, the resulting lat. is 37°47'N.

N. 0°17'W., bet secs. 10 and 11

Gradual ascent over rolling land, through dense undergrowth.

7.95 Telephone line from Monticello to Grayson, bears NE. and SW.

CHAINS

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground., for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 10 on W. half, S 11^v on E. half, dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

52.10 Enter scattering timber, bears NW. and SE.

54.20 Top of ridge, bears NW. and SE.

76.00 Begin abrupt descent, bears NW. and SE.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 2-3-10 and 11, marked on brass cap, T. 35 S. S. $\frac{3}{4}$ in NW.,

R 23 E S 2 in NE.,

S 11^v in SE. and S 10 in SW. quadrant, from which

A pinon, 20 ins. diam., bears N. 30° 56' E. 285 lks dist., marked T 35 S R 23 E S 2 BT.

A pinon, 7 ins. diam., bears N. 73° 54' W. 210 lks. dist., marked T 35 S R 23 E S $\frac{3}{4}$ BT.

A cedar, 6 ins. diam., bears S. 70° 56' W. 151 lks. dist., marked T 35 S R 23 E S $\frac{1}{2}$ 10 BT.

A pinon, 18 ins. diam., bears S. 15° 09' E. 70 lks. dist., marked T 35 S R 23 E S 11 BT.

Land, rolling and mountainous.

Soil, sandy loam 24 ins. deep, first rate on first 52.10 chs., rocky and broken ledges on balance, 3rd. and 4th. rate;

Timber, cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth or mountainous land on 80.00 chs.

June 29, 1911

Melvin D. Heist
U.S. Transitman

SUBDIVISIONS OF T.35 S.R.23 E.

CHAINS

June 26: At 8h.02m., a.m., l.m.t., I set off $37^{\circ}43'$ N. on lat. arc, $23^{\circ}24'$ N. on decl. arc, and determine a meridian with the solar at the stan. cor. of secs. 33 and 34, heretofore described on the Seventh Standard Parallel South.

Thence I run

N. $0^{\circ}11'$ W., bet. secs. 33 and 34.

Gradual ascent over rolling and rocky land, through heavy timber.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 33^{\vee} on W. half, S 34^{\vee} on E. half, from which

A cedar, 8 ins. diam., bears S. $89^{\circ}45'$ E., 34 lks. dist., marked $\frac{1}{4}$ S 34^{\vee} BT.

A cedar, 5 ins. diam., bears N. $63^{\circ}50'$ W., 28 lks. dist., marked $\frac{1}{4}$ S 33^{\vee} BT.

43.00 Leave live timber, bears E. and W.

Enter burnt timber.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 27-28-33 and 34, marked on brass cap, T 35 S S 28^{\vee} in NW.,

R 23 E S 27^{\vee} in NE.,

S 34^{\vee} in SE. and S 33^{\vee} in SW. quadrant, dig pits, 18x18x12 ins., in each sec., $5\frac{1}{2}$ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, rolling.

Soil, rocky loam, 18 ins. deep, 2nd. rate.

Timber, heavy live cedar and pinon on 43.00 chs., dead and burnt timber on balance.

Heavily timbered land on 80.00 chs.

June 26: At this cor. I set off $23^{\circ}24'$ N. on decl. arc, and at 0h.02m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}44'$ N.

SUBDIVISIONS OF T.35 S., R.23 E.

CHAINS

East on a random line, bet. secs. 27 and 34.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.06 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 26-27-34 and 35.

Thence I run

S. $89^{\circ}58'W.$, on a true line,

Bet. secs. 27 and 34.

Descend over rocky and mountainous land, through heavy timber.

1.75 Devils Canyon, 150 ft. deep, course SE.

Abrupt ascent over broken sandstone ledges.

16.46 Top of abrupt ascent, bears NW. and SE.

Over rolling mesa.

40.03 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 27 on N. half, S 34 on S. half, from which

A pinon, 7 ins. diam., bears S. $0^{\circ}30'W.$, 32 lks. dist., marked $\frac{1}{4}$ S 34 BT.

A pinon, 10 ins. diam., bears N. $47^{\circ}25'W.$, 97 lks. dist., marked $\frac{1}{4}$ S 27 BT.

70.00 Leave timber, bears NW. and SE.

80.06 The cor. of secs. 27-28-33 and 34.

Land, mountainous and rolling.

Soil, rocky and broken ledges, 3rd. and 4th. rate on first 16.46 chs.; balance, rocky loam, 18 ins. deep, 2nd. rate. Timber, heavy cedar and pinon on first 70.00 chs. Heavily timbered land on 70.00 chs.

June 26, 1911

June 27: At 8h. 03m., a.m., 1.m.t., I set off $37^{\circ}44'N.$ on lat. arc, $23^{\circ}23'N.$ on decl. arc, and determine a meridian with the solar at the cor. of secs. 27-28-33 and 34.

Thence I run

N. $0^{\circ}10'E.$, bet. secs. 27 and 28.

Gradual ascent over rolling and rocky land, through sparse undergrowth.

SUBDIVISIONS OF T.35 S.,R.23 E.

CHAINS	
7.00	Enter heavy timber,bears NW.and SE.
40.00	Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S28 on W.half,S.27 on E.half, from which <div style="margin-left: 40px;">A cedar,6 ins.diam.,bears S.84°55'E.,30 lks.dist., marked $\frac{1}{4}$ S.27 BT.</div> <div style="margin-left: 40px;">A cedar,5 ins.diam.,bears N.62°50'W.,190 lks.dist., marked $\frac{1}{4}$ S 28 BT.</div>
54.60	Begin abrupt descent over broken sandstone ledges, bearing NW.and SE.
60.30	Devils Canyon,150 ft.deep,course SE. Abrupt ascent over broken ledges.
68.10	Top of abrupt ascent,bears NW.and SE. Over rolling mesa.
78.50	Old County road,bears NE.and SW.
80.00	Set an iron post,3 ft.long,2 ins.dia.,24 ins.in the ground for cor.of secs.21-22-27 and 28,marked on brass cap, T 35 S S 21 in NW., R 23 E S 22 in NE., S 27 in SE.and S 28 in SW.quadrant, from which <div style="margin-left: 40px;">A pinon,10 ins.diam.,bears N.79°15'E.,57 lks.dist., marked T 35 S R 23 E S 22 BT.</div> <div style="margin-left: 40px;">A cedar,14 ins.diam.,bears S.49°50'E.,92 lks.dist., marked T 35 S R 23 E S 27 BT.</div> <div style="margin-left: 40px;">A pinon,15 ins.diam.,bears S.48°50'W.,34$\frac{1}{2}$ lks.dist., marked T 35 S R 23 E S 28 BT.</div> <div style="margin-left: 40px;">A cedar,16 ins.diam.,bears N.33°10'W.,14 lks.dist., marked T 35 S R 23 E S 21 BT.</div>
	Land,rolling and mountainous.
	Soil,rocky loam,18 ins.deep,2nd.rate on rolling portion; balance, broken ledges,and boulders, 4th.rate.
	Timber, cedar and pinon on last 73.00 chs.
	Heavily timbered land on 73.00 chs.

SUBDIVISIONS OF T. 35 S., R. 23 E.

CHAINS

N. $89^{\circ}58'W.$, on a random line, bet. secs. 22 and 27.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.94 Intersect N. and S. line, 5 lks. N. of the cor. of secs. 22-23-26 and 27.

Thence I run

West, on a true line, bet. secs. 22 and 27.

Descend over rocky and mountainous land, through heavy timber.

11.75 Indian Canyon, 100 ft. deep, course SE.

Abrupt ascent over broken ledges.

17.70 Top of abrupt ascent, bears NW. and SE.

Over rolling and rocky mesa.

39.97 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22° on N. half, S 27° on S. half, from which

A pinon, 12 ins. diam., bears S. $58^{\circ}30'W.$, 62 $\frac{1}{2}$ lks. dist., marked $\frac{1}{4}$ S 27° BT.

A pinon, 13 ins. diam., bears N. $54^{\circ}15'E.$, 62 lks. dist., marked $\frac{1}{4}$ S 22° BT.

78.00 Old County road, bears NE. and SW.

79.94 The cor. of secs. 21-22-27 and 28.

Land, mountainous and rolling.

Soil, broken ledges and boulders, 4th. rate on first 17.70

chs.; balance, rocky loam, 18 ins. deep, 2nd. rate.

Timber, heavy cedar and pinon.

Mountainous land or land heavily timbered on 79.94 chs.

June 27: At this cor. I set off $23^{\circ}22'N.$ on decl. arc, and at Oh. 03m., p.m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N.$

N. $0^{\circ}18'E.$ bet. secs. 21 and 22.

Gradual ascent over rolling and rocky mesa, through heavy timber.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 21° on W.

CHAINS

half, S 22 on E. half, from which

A cedar, 16 ins. diam., bears S. 89°10' W., 129 lks. dist.,
marked $\frac{1}{4}$ S 21 BT.

A cedar, 7 ins. diam., bears S. 88°30' E., 83 lks. dist.,
marked $\frac{1}{4}$ S 22 BT.

June 27, 1911

June 28: At 8h. 03m., a.m., 1. m. t., I set off 37°45' N. on lat.
arc, 23°20' N. on decl. arc, and determine a meridian with
the solar at the $\frac{1}{4}$ sec. cor. bet. secs. 21 and 22.

Thence I continue N. 0°18' E., bet. secs. 21 and 22.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the
ground, for cor. of secs. 15-16-21 and 22, marked on brass
cap, T 35 S S 16 in NW.,

R 23 E S 15 in NE.,

S 22 in SW. and S 21 in SW. quadrant, from which

A cedar, 10 ins. diam., bears N. 50°50' E., 20 lks.
dist., marked T 35 S R 23 E S 15 BT.

A cedar, 7 ins. diam., bears S. 26°20' E., 32 lks.
dist., marked T 35 S R 23 E S 22 BT.

A cedar, 25 ins. diam., bears S 42°35' W., 46 lks. dist.,
marked T 35 S R 23 E S 21 BT.

A pinon, 8 ins. diam., bears N. 53°30' W., 64 lks. dist.,
marked T 35 S R 23 E S 16 BT.

Land, rolling.

Soil, rocky loam, 18 ins. deep, 2nd. rate.

Timber, heavy cedar and pinon.

Heavily timbered land on 80.00 chs.

East, on a random line, bet. secs. 15 and 22.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.00 Intersect N. and S. line, 3 lks. S. of the cor. of secs.
14-15-22 and 23.

Thence I run

S. 89°59' W., on a true line,

Bet. secs. 15 and 22.

Over rolling mesa, through dense undergrowth.

SUBDIVISIONS OF T. 35 S., R. 23 E.

CHAINS

- 20.00 Enter heavy timber, bears NW. and SE.
- 25.19 Old County road, bears NE. and SW.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 15^v on N. half, S 22^v on S. half, from which
- A pinon, 4 ins. diam., bears N. 58°28'E., 107 lks. dist., marked $\frac{1}{4}$ S 15^v BT.
- A cedar, 5 ins. diam., bears S. 43°45'W., 119 lks. dist., marked $\frac{1}{4}$ S 22^v BT.
- 40.75 Leave timber, bears NW. and SE.
- 54.40 Enter heavy timber, bears NW. and SE.
- 80.00 The cor. of secs. 15-16-21 and 22.
- Land, rolling.
- Soil, rocky loam, 18 ins. deep, 2nd. rate.
- Timber, heavy cedar and pinon on 46.35 chs.
- Undergrowth, sage brush.
- Heavily timbered land or land covered with dense undergrowth on 80.00 chs.
- June 28: At this cor. I set off 23°19'N. on decl. arc, and at Oh. 03m., p.m., l.m.t., observe the sun on the meridian, the resulting is 37°46'N.
-
- N. 0°01'E., bet. secs. 15 and 16.
- Gradual descent over rolling mesa, through heavy timber.
- 11.00 Begin abrupt descent, bears NW. and SE.
- 15.57 Telephone line between Grayson and Monticello, bears E. and W.
- 17.00 Hollow, 75 ft. deep, course SW.
- Abrupt ascent.
- 20.15 Top of abrupt ascent, bears NE. and SW.
- Over rolling and rocky mesa.
- 33.40 Leave timber, bears NE. and SW.
- Enter dense undergrowth.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 16^v on W.

CHAINS

half, S 15 on E. half, dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.

61.90 Enter heavy timber, bears NW. and SE.

65.00 Begin abrupt descent, bears NW. and SE.

70.70 Hollow, 60 ft. deep, course SE.

Abrupt ascent.

74.00 Top of abrupt ascent, bears NW. and SE.

Over rolling mesa.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 9-10-15 and 16, marked on brass cap T 35 S S 9 in NW.,

R 23 E S 10 in NE.,

S 15 in SE. and S 16 in SW. quadrant, from which

A cedar, 17 ins. diam., bears N. 58°55' E., 22 lks. dist., marked T 35 S R 23 E S 10 BT.

A cedar, 14 ins. diam., bears S. 12°55' E., 66 lks. dist., marked T 35 S R 23 E S 15 BT.

A cedar, 16 ins. diam., bears S. 13°50' W., 58 lks. dist., marked T 35 S R 23 E S 16 BT.

A cedar, 8 ins. diam., bears N. 84°55' W., 197 lks. dist., marked T 35 S R 23 E S 9 BT.

Land, rolling and mountainous.

Soil, rocky loam, 12 ins. deep on mesas, 3rd. rate; balance, broken ledges, and boulders, 4th. rate.

Timber, heavy cedar and pinon.

Undergrowth, oak brush and sage brush.

Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.00 chs.

June 28, 1911

June 29: At 8h. 03m., a.m., l.m.t., I set off 37°47' N. on lat. arc, 23°18' N. on decl. and determine a meridian with the solar, at the cor. of secs. 9-10-15 and 16. Thence I run

SUBDIVISIONS OF T.35 S., R.23 W.

CHAINS	
	N.89°59'E., on a random line, bet. secs. 10 and 15.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect N. and S. line, 3 lks. S. of the cor. of secs. 10-11-14 and 15.
	Thence I run
	S.89°58'W., on a true line,
	Bet. secs. 10 and 15.
	Over rolling mesa, through dense undergrowth and scattering timber.
9.75	Telephone line, between Grayson and Monticello, bears NE. and SW.
25.50	Begin abrupt descent over sandstone ledges, bearing NW. and SE.
29.62	Long Canyon, 75 ft. deep, course SE.
	Abrupt ascent.
33.90	Top of abrupt ascent, bears NW. and SE.
	Over rolling mesa.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 10 on N. half, S 15 on S. half, from which
	A cedar, 24 ins. diam., bears N.10°10'W., 82 lks. dist., marked $\frac{1}{4}$ S 10 BT.
	A pinon, 12 ins. diam., bears S.16°10'W., 21 lks. dist., marked $\frac{1}{4}$ S 15 BT.
80.00	The cor. of secs. 9-10-15 and 16.
	Land, rolling and mountainous.
	Soil, rocky loam, 18 ins. deep, on mesas, 2nd. rate., balance broken ledges, 4th. rate.
	Timber, scattering cedar and pinon.
	Undergrowth, sage brush and oak brush.
	Land covered with dense undergrowth on 80.00 chs.
	N.0°18'W., bet. secs. 9 and 10.
	Over rolling mesa, through dense undergrowth.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 9 on W. half, S 10

SUBDIVISIONS OF T.35 S.,R.23 E.

CHAINS		
	<p>E. half, dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.</p>	
52.90	<p>Begin abrupt descent over sandstone ledges, bearing NW. and SE.</p>	
54.90	<p>Long Canyon, 75 ft. deep, course SE. Abrupt ascent.</p>	
56.00	<p>Top of abrupt ascent, bears NW. and SE. Over rolling mesa.</p>	
80.00	<p>Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 3-4-9 and 10, marked on brass cap, T 35 S S 4' in NW., R 23 E S 3' in NE., S 10 in SE. and S 9' in SW. quadrant, dig pits, 18x18x12 ins. in each sec., 5½ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor. Land, rolling and mountainous. Soil, sandy loam, 18 ins. deep, on mesas, 1st. rate; balance, broken ledges, 4th. rate. No timber. Undergrowth, oak brush and sage brush. Land covered with dense undergrowth on 80.00 chs. June 29: At this cor. I set off 23°17' N. on decl. arc, and at 0h.03m., p.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37°48' N.</p>	
40.00	<p>From the cor. of secs. 2-3-10 and 11, I run N. 89°58' E., on a random line, bet. secs. 2 and 11. Set temp. ¼ sec. cor.</p>	
79.90	<p>Intersect N. and S. line, 3 lks. N. of the cor. of secs. 1-2-11 and 12. Thence I run S. 89°59' W., on a true line, Bet. secs. 2 and 11. Over rolling mesa, gradual ascent through dense undergrowth and scattering timber.</p>	
12.00	<p>Leave timber.</p>	

SUBDIVISIONS OF T.35 S.,R.23 E.

CHAINS

- 17.70 Telephone line,between Grayson and Monticello,bears NE.and SW.
- 25.40 Old County road,bears NE.and SW.
- 39.95 Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground for $\frac{1}{2}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S 2 on N.half,S 11 on S.half,dig pits,18x18x12 ins.,E.and W.of post,3 ft. dist.,and raise a mound of earth, $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft.high, N.of cor.
- 75.00 Abrupt descent over sandstone ledges,bearing NW.and SE.
- 76.60 Hollow,100 ft.deep,course SE.
Abrupt ascent.
- 79.90 The cor.of secs.2-3-10 and 11.
Land,rolling and mountainous.
Soil, sandy loam,24 ins.deep,1st.rate on first 75.00 chs.; balance,broken ledges, 4th.rate.

June 29, 1911

June 30: At 8h.^{03m.},a.m.,l.m.t.,I set off $37^{\circ}48'$ N.on lat.arc, $23^{\circ}14'$ N.on decl.arc,and determine a meridian with the solar,at the cor.of secs.2-3-10 and 11.

Thence I run

N. $0^{\circ}03'$ W.,on a random line,bet.secs.2 and 3.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.90 Intersect N.bdy.of Tp.,14 lks.W.of the cor.of secs. 2-3-34 and 35,which is a sandstone 8x14x8 ins.above ground,marked and witnessed as described by the surveyor general.

Thence I run

S. $0^{\circ}03'$ W.,on a true line,

Bet.secs.2 and 3.

Gradual descent over rolling and rocky land,through dense undergrowth.

9.44 State road, between Monticello and Grayson,bears NE. and SW.

18.00 Begin abrupt descent,bearing NW.and SE.

CHAINS	
20.50	Hollow, 50 ft. deep, course SW. Abrupt ascent.
24.00	Top of abrupt ascent, bears NE. and SW. Gradual descent over rolling mesa.
39.90	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 3' on W. half, S 2' on E. half; dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
49.00	Enter scattering timber.
70.00	Begin abrupt descent, bears NW. and SE.
75.80	Hollow, 75 ft. deep, course SE. Abrupt ascent. Leave timber.
79.90	The cor. of secs. 2-3-10 and 11. Land, rolling and mountainous. Soil, rocky loam, 24 ins. deep, 2nd. rate on rolling portion; balance, broken ledges, 4th. rate. Timber, scattering cedar and pinon on 26.80 chs. Undergrowth, sage brush and oak brush. Land covered with dense undergrowth or mountainous land on 79.90 chs. June 30: At this cor. I set off $23^{\circ}13'$ N. on decl. arc, and at 0h. 03m., p.m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}48'$ N.
From the cor. of secs. 3-4-9 and 10, I run N. $89^{\circ}58'$ E., on a random line, bet. secs. 3 and 10.	
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect N. and S. line, 7 lks. S. of the cor. of secs. 2-3-10 and 11. Thence I run S. $89^{\circ}55'$ W., on a true line, Bet. secs. 3 and 10. Ascend over rocky land, through dense undergrowth and scattering timber.

CHAINS	
2.00	Rim on west side of hollow, bears NW. and SE. Ascend over rolling land.
20.00	Ridge, bears NW. and SE. Leave timber. Descend.
39.95	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 3 \checkmark on N. half, S 10' on S. half, dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth, 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
79.90	The cor. of secs. 3-4-9 and 10. Land, rolling. Soil, rocky loam, 2nd. rate, 24 ins. deep. Timber, cedar and pinon. Undergrowth, sage brush and oak brush. Land covered with dense undergrowth on 79.90 chs.
40.00	N. 0°04' W., on a random line, bet. secs. 3 and 4. Set temp. $\frac{1}{4}$ sec. cor.
79.38	Intersect N. hdy. of Tp., at the corner of sections 3-4-33 and 34, which is a porphyry stone, 8x12x4 ins. above ground, marked and witnessed as described by the surveyor general. Thence I run S. 0°04' E., on a true line, Bet. secs. 3 and 4.
	Gradual descent over rolling and rocky land, through dense undergrowth.
39.33	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 4 on W. half, S 3' on E. half, dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
51.05	State road, between Grayson and Monticello, bears NE. and SW.
79.88	The cor. of secs. 3-4-9 and 10. Land, rolling.

CHAINS

Soil, rocky loam, 2nd. rate, 24 ins. deep.

No timber.

Undergrowth, sage brush and oak brush.

Land covered with dense undergrowth on 79.88 chs.

June 30, 1911

Chas. B. Andrews
U.S. Transitman

June 30: At 8h. 03m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on lat. arc, $23^{\circ}14'N.$ on decl. arc, and determine a meridian with the solar at the stan. cor. of secs. 32 and 33, heretofore described on the Seventh Standard Parallel South.

Thence I run

$N.0^{\circ}12'W.$, bet. secs. 32 and 33.

Over rolling land, through heavy timber.

5.00 Begin abrupt descent over sandstone ledges, bearing NE. and SW.

9.80 Hollow, 75 ft. deep, course SW.
Abrupt ascent.

16.00 Top of abrupt ascent, bears NE. and SW.
Gradual ascent over rolling and rocky land.

19.40 Leave live timber, bears E. and W.
Enter heavy burnt and dead timber.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 32 on W. half, S 33 on E. half, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 28-29-32 and 33, marked on brass cap, T 35 S S 29' in NW.,
R 23 E S 28' in NE.,
S 33' in SE. and S 32' in SW. quadrant, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.

Land, rolling and mountainous.

Soil, rocky and broken ledges, 4th. rate.

CHAINS	
	<p>Timber, heavy live cedars and pinons on 19.40 chs. dead and burnt cedar and pinon on balance. Mountainous land or heavily timbered land on 80.00 chs.</p>
	<p>East, on a random line, bet. secs. 28 and 33.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect N. and S. line, 9 lks. N. of the cor. of secs. 27-28-33 and 34. Thence I run N. $89^{\circ}56'$ W. on a true line, Bet. secs. 28 and 33. Over rolling and rocky land through dense undergrowth.
18.40	Enter heavy timber, bears NE. and SW.
39.95	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 28 on N. half, S 33 on S. half, from which A cedar, 9 ins. diam., bears N. $23^{\circ}50'$ E., 63 lks. dist., marked $\frac{1}{4}$ S 28 BT. A cedar, 14 ins. diam., bears S. $12^{\circ}10'$ W., 16 lks. dist., marked $\frac{1}{4}$ S 33 BT.
41.08	Old road, bears N. and S. E. and S.
42.10	Leave live timber, bears N. and S. Enter heavy burnt timber.
62.00	Begin abrupt descent over sandstone ledges, bearing N. and S.
65.40	Hollow, 50 ft. deep, course S. Abrupt ascent over ledges.
70.00	Top of abrupt ascent, bears N. and S. Over rolling land.
79.90	The cor. of secs. 28-29-32 and 33. Land, rolling and mountainous. Soil, rocky loam, 24 ins. deep, 2nd. rate on first 62.00 chs. balance sandstone ledges, 4th. rate. Timber, live cedar and pinon on 23.70 chs. dead and burnt cedar and pinon on 37.80 chs. Undergrowth, sage brush. Land covered with dense undergrowth, mountainous land or

CHAINS

heavily timbered on 79.90 chs.

June 30: At this cor. I set off $23^{\circ}13'N.$ on decl. arc, and at $0h.03m., p.m., l.m.t.,$ observe the sun on the meridian, the resulting lat. is $37^{\circ}44'N.$

$N.0^{\circ}09'E.,$ bet. secs. 28 and 29.

Over rolling and rocky land through heavy dead timber.

14.00 Leave dead timber, bears NE. and SW.

Enter heavy live timber.

36.00 Begin abrupt descent over sandstone ledges, bearing NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4} S 29$ on W. half, $S 28$ on E. half, from which

A cedar, 14 ins. diam., bears $N.37^{\circ}53'E.,$ 32 lks. dist., marked $\frac{1}{4} S 28$ BT.

A cedar, 9 ins. diam., bears $S.37^{\circ}02'W.,$ 139 lks. dist., marked $\frac{1}{2} S 29$ BT.

41.25 Hollow, 100 ft. deep, course SW.

Abrupt ascent over ledges.

55.20 Top of abrupt ascent, bears NE. and SW.

Over rolling land.

63.00 Begin abrupt descent over sandstone ledges.

68.50 Old County road, bears E. and W., in bottom of same hollow, 100 ft. deep, course SE.

Ascend along steep west slope over ledges.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 20-21-28 and 29, marked on brass cap, $T 35 S S 20$ in NW.,

$R 23 E S 21$ in NE.,

$S 28$ in SE. and $S 29$ in SW. quadrant, from which

A pine, 24 ins. diam., bears $N.76^{\circ}22'E.,$ 130 lks. dist., marked $T 35 S R 23 E S 21$ BT.

A pine, 24 ins. diam., bears $S.6^{\circ}45'E.,$ 99 lks. dist., marked $T 35 S R 23 E S 28$ BT.

CHAINS

A pine, 12 ins. diam., bears S. 22° 50' W., 144 lks.
 dist., marked T 35 S R 23 E S 29 BT.
 A pine, 18 ins. diam., bears N. 30° 39' W., 211 lks.
 dist., marked T 35 S R 23 E S 20 BT.

Land, rolling and mountainous.

Soil, rocky loam, 2nd. rate on first 36.00 chs.; balance
 sandstone ledges, 4th. rate.

Timber, dead cedar and pinon on first 14.00 chs.

heavy cedar, pinon and yellow pine on balance.

Heavily timbered land or mountainous land on 80.00 chs.

June 30, 1911

JULY 1: At 8h. 03m., a.m., 1.m.t., I set off 37° 45' N. on lat.
 arc, 23° 11' N. on decl. arc, and determine a meridian with
 the solar at the cor. of secs. 20-21-28 and 29.

Thence I run

S. 89° 56' E., on a random line, bet. secs. 21 and 28.

49.00 Set temp. $\frac{1}{2}$ sec. cor.

80.00 Intersect N. and S. line, 5 lks. S. of the cor. of secs.
 21-22-27 and 28.

JULY 1: At this cor. I set off 23° 10' N. on decl. arc, and
 at 0h. 03m., p.m., 1.m.t., observe the sun on the meridian,
 the resulting lat. is 37° 45' N.

Thence I run

N. 89° 58' W., on a true line,

bet. secs. 21 and 28.

Over nearly level land, through heavy timber.

6.46 Begin abrupt descent over sandstone ledges, bearing N.
 and S.

7.00 Old County road, bears NW. and SE.

12.20 Hollow, 150 ft. deep, course S.

Abrupt ascent over sandstone ledges.

13.20 Same road, bears NE. and SW.

19.00 Sandstone spur, projects SE.

Abrupt descent over sandstone ledges.

SUBDIVISIONS OF T.35 S., R.23 E.

CHAINS	
24.80	Devils Canyon, 150 ft. deep, course SE. Abrupt ascent.
30.80	Same road, bears NW. and SE.
35.157	Sandstone spur, projects SE. Descend.
40.03	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 21 on N. half, S 28 on S. half, from which A pinon, 6 ins. diam., bears N. 25° 31' W., 42 lks. dist., marked $\frac{1}{4}$ S 21 BT. A pinon, 8 ins. diam., bears S. 28° 05' E., 47 lks. dist., marked $\frac{1}{4}$ S 28 BT.
40.50	Hollow, 50 ft. deep, course SE. Ascend over sandstone ledges.
43.00	Top of abrupt ascent, bears N. and S. Leave timber, bears N. and S. Same road, bears N. and S. Enter dense undergrowth, over rolling land.
55.35	Old road, bears NW. and SE.
79.50	Begin abrupt descent over sandstone ledges, bearing N. and S. Enter heavy timber, bearing N. and S.
80.06	The cor. of secs. 20-21-28 and 29. Land, rolling and mountainous. Soil, sandy loam, from 8 to 12 ins. deep, on mesas; 2nd rate; balance, sandstone ledges, 4th. rate. Timber, cedar, pinon and yellow pine. Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.06 chs. <p style="text-align: right;">July 1, 1911</p>
<hr/> <p>July 3: At 8h. 04m., a.m., 1.m.t., I set off 37° 45' N. on lat. arc, 23° 03' N. on decl. arc, and determine a meridian with the solar; at the cor. of secs. 20-21-28 and 29. Thence I run N. 0° 17' E., bet. secs. 20 and 21.</p>	

CHAINS

- Over rolling and rocky land through heavy timber, descend.
- 2.15 Hollow, 50 ft. deep, course from N. to SW.
Gradual ascent along bottom of hollow.
- 7.85 Leave bottom of hollow, ascent along west slope.
- 38.80 Abrupt ascent over sandstone ledges, 40 ft. high, bears
NW. and SE.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia. 26 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 20 on
W. half, S 21 on E. half, from which
A cedar, 9 ins. diam., bears N. $44^{\circ}28'$ E. 53 lks.
dist., marked $\frac{1}{4}$ S 21 BT.
A cedar, 20 ins. diam., bears West 4 lks. dist.,
marked $\frac{1}{4}$ S 20 BT.
- 46.22 Top of abrupt ascent, bears NW. and SE.
Gradual descent, over rolling mesa.
- 55.00 Leave heavy pinon and cedar, bears NE. and SW., enter long
leaf pine.
- 63.20 Ravine, 30 ft. deep, course SW.
Gradual ascent.
- 72.08 Leave long leaf pine, bears E. and W., enter heavy pinon
and cedar.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the
ground, for cor. of secs. 16-17-20 and 21, marked on
brass cap, T 35 S S 17 in NW.,
R 23 E S 16 in NE.,
S 21 in SE. and S 20 in SW. quadrant, from which
A pinon, 14 ins. diam., bears N. $19^{\circ}35'$ E. 59 lks.
dist., marked T 35 S R 23 E S 16 BT.
A pinon, 10 ins. diam., bears S. $66^{\circ}29'$ E. 40 lks.
dist., marked T 35 S R 23 E S 21 BT.
A pinon, 9 ins. diam., bears S. $64^{\circ}50'$ W. 34 lks.
dist., marked T 35 S R 23 E S 20 BT.
A pinon, 10 ins. diam., bears N. $33^{\circ}24'$ W. 78 lks.
dist., marked T 35 S R 23 E S 17 BT.
- Land, rolling and mountainous.
Soil, broken ledges and rocky, first 67.00 chs. 3rd. rate,
balance, rocky loam, 20 ins. deep, 2nd. rate.

CHAINS

Timber, heavy pinon and cedar, first 55.00 chs., and last 7.92 chs., balance long leaf pine.

Heavily timbered land on 80.00 chs.

July 3: At this cor. I set off $23^{\circ}01'N.$ on decl. arc. and at $08^{\circ}04m., p.m., l.m.t.,$ observe the sun on the meridian, the resulting lat. is $37^{\circ}46'N.$

$S. 89^{\circ}58'E.$ on a random line, bet. secs 16 and 21.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.10 Intersect N. and S. line, 5 lks. N. of the cors. of secs. 15-16-21 and 22.

Thence I run

$N. 89^{\circ}56'W$ on a true line,

Bet. secs. 16 and 21.

Over rolling and rocky land, through heavy timber, Gradual descent.

10.50 Abrupt descent, over sandstone ledges, bears NE. and SW.

14.50 Hollow, 60 ft. deep, course SW.

Abrupt ascent.

18.20 Top of spur, projects S. 3 chs.

Abrupt descent.

21.10 Hollow, 60 ft. deep, course SE.

Abrupt ascent over sandstone ledges,

24.30 Top of ledges, bears NW. and SE.
Gradual ascent over rolling mesa.

38.64 Abrupt descent over sandstone ledges, on the E. side of Devils Canyon, bears NW. and SE.

26 ins.

40.05 Set an iron post, 3 ft. long, 1 in. dia. in a mound of earth and stone, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 16 \checkmark on N. half, S 21 \checkmark on S half, from which

A pinon, 11 ins. diam., bears $S. 25^{\circ}04'E.$ 68 lks. dist., marked $\frac{1}{4}$ S 21 BT.

A pinon, 9 ins. diam., bears $N. 54^{\circ}13'W.$ 65 lks. dist., marked $\frac{1}{4}$ S 16 BT.

Note:

On account of natural obstacles it is impossible to set this post over 14 ins. in the ground.

SUBDIVISIONS OF T.35 S.R.23 E.

CHAINS	
44.60	Devils Canyon, 150 ft. deep, course S. Abrupt ascent.
50.98	Top of sandstone ledges, bears N. and S. Gradual ascent over rolling mesa.
72.47	Old road, bears NW. and SE.
80.10	The cor. of secs. 16-17-20 and 21. Land, rolling and mountainous. Soil, rocky loam, on mesa, 18 to 20 ins. deep 2nd. rate, balance: broken ledges and rocky, 4th. rate. Timber, heavy pinon and cedar. Heavy timbered land on 80.10 chs.
	July 3, 1911
<p>July 5: At 8h. 04m., a.m., 1.m.t., I set off $37^{\circ}46'N.$ on lat. arc, $22^{\circ}53'N.$ on decl. arc, and determine a meridian with the solar, at the cor. of secs. 16-17-20 and 21. Thence I run</p>	
	North bet. secs. 16 and 17.
	Over rolling mountainous land, through heavy timber, ascent.
3.85	Leave heavy timber, bears E. and W., enter dense undergrowth.
9.50	Old road, bears NW. and SE.
10.40	Telephone line, from Grayson to Monticello, bears E. and SW.
19.90	Leave dense undergrowth, enter heavy timber, bears E. and W.
24.68	State Road, bears NE. and SW., from Monticello to Grayson.
34.85	Abrupt descent over sandstone ledges, bears NW. and SE.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 17° on E. half, S 16° on W. half, from which
	A pinon, 18 ins. diam., bears S. $73^{\circ}20'E.$ 27 lks. dist., marked $\frac{1}{4}$ S 16° BT.
	A pinon, 9 ins. diam., bears S. $78^{\circ}45'W.$ 45 lks. dist., marked $\frac{1}{4}$ S 17° BT.
	Gradual descent.
44.00	Hollow, 50 ft. deep, course SE.
	Abrupt ascent over sandstone ledges,
52.95	Top of ledges bears NW. and SE. Gradual ascent over rolling mesa.
71.35	Leave heavy timber, bears E. and W., enter dense undergrowth.

CHAINS

80.00 Set an iron post, 3 ft. long, 2 ins. dia. 24 ins. in the ground, for cor of secs. 8-9-16 and 17, marked on brass cap, T 35 S 8 in NW.,
 R 23 E S 9 in NE.,
 S 16 in SE. and S 17 in SW. quadrant, dig pits, 18x18x12 ins., in each sec., 5½ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.
 Land rolling and mountainous.
 Soil, sandy loam, 18 ins. deep on mesas, 1st. rate, balance broken ledges, and rocky, 4th. rate.
 Timber, pinon and cedar.
 Undergrowth, sage brush.
 Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.00 chs.

From the cor. of secs. 8-9-16 and 17, I run
 S. 89°56'E. on a random line, bet. secs. 9 and 16.

40.00 Set a temp. ¼ sec. cor.

80.12 Intersect N. and S. line, 1 lk. S. of the cor. of secs. 9-10-15 and 16.

Thence I run
 W. 89°56'W., on a true line,
 Bet. secs 9 and 16.

Over rolling mesa, gradual descent through dense undergrowth and scattering timber.

6.10 Abrupt descent into hollow, bears NW. and SE.

10.95 Hollow. 75 ft. deep, course SE., abrupt ascent.

12.75 Top of sandstone ledges, bears N. and SE.

Gradual ascent over rolling mesa.

23.10 State Road, bears NE. and SW., from Monticello to Grayson.

40.06 Set an iron post, 3 ft. long, 1 in. dia, 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 9 on N. half, S 16 on S. half, from which

A cedar, 6 ins. diam., bears S. 57°52'E. 24 lks. dist., marked ¼ S 16 BT.

A pinon, 5 ins. diam., bears N. 15°45'W. 43 lks. dist., marked ¼ S 9 BT.

CHAINS	
61.54	Abrupt descent over sandstone ledges, bears NW. and SE.
63.30	Bottom of Devils Canyon, 150 ft. deep, course SE.
	Abrupt ascent over sandstone ledges,
67.10	Top of ledges, bears NW. and SE.
80.12	The cor. of secs. 8-9-16 and 17.
	Land, rolling and mountainous.
	Soil, sandy loam, 20 to 30 ins. deep on mesas, 1st. rate, balance, broken ledges, and rocky, 4th. rate.
	Timber, pinon and cedar,
	Undergrowth, sage brush.
	Mountainous land, scattering timbered land or covered with dense undergrowth on 80.12 chs.
	July 5: At this cor. I set off $22^{\circ}51'N.$ on decl. arc, and at $04^{\text{h.}}, 4^{\text{m.}}, 1^{\text{m.}}, 1^{\text{s.}}$, observe the sun on the meridian; the resulting lat. is $37^{\circ}47'N.$
----- N. $0^{\circ}19'W.$, bet. secs. 8 and 9	
	Over rolling and mountainous land, through dense undergrowth.
12.00	Leave dense undergrowth, enter heavy timber, bears NW. and SE.
14.05	Yellow pine, 30 ins. dia., on line; mkd. 2 notches on N. & S.
30.20	Abrupt descent over sandstone ledges, bears NW. and SE.
34.10	Hollow, 75 ft. deep, course SE.
	Abrupt ascent,
38.10	Top of sandstone ledges, bears NW. and SE.
	Gradual ascent over rolling mesa.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S. 8 ^v on W. half, S 9' on E. half, from which
	A pine, 18 ins. diam., bears N. $36^{\circ}00'E.$ 62 lks. dist., marked $\frac{1}{4}$ S 9 ^v BT.
	A pine, 24 ins. diam., bears S. $82^{\circ}20'W.$ 34 lks. dist., marked $\frac{1}{4}$ S 8 ^v BT.
57.40	Top of sandstone ledges, bears NW. and SE.
	Abrupt descent over ledges.
59.90	Bottom of Devils Canyon, 150 ft. deep, course SE.

CHAINS

Abrupt ascent.

67.09 Top of sandstone ledges, bears NW. and SE.

Gradual ascent over rolling mesa.

80.000 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for cor. of secs. 4-5-8 and 9, marked on brass cap,

T 35 S S 5^v in NW.,

R 23 E S 4^v in NE.,

S 9^v in SE. and S 8^v in SW. quadrant, from which

A pine, 30 ins. diam., bears N. 80° 29' E. 62 lks. dist., marked T 35 S R 23 E S 4^v BT.

A pine, 24 ins. diam., bears S. 28° 35' E. 235 lks. dist., marked T 35 S R 23 E S 9^v BT.

A pine, 10 ins. diam., bears S. 17° 26' W. 89 lks. dist., marked T 35 S R 23 E S 8^v BT.

A pine, 15 ins. diam., bears W. 28° 30' W. 131 lks. dist., marked T 35 S R 23 E S 5^v BT.

Land, rolling and mountainous.

Soil, rocky loam, 10 to 15 ins. deep on mesas, 2nd. rate, balance: broken ledges, and rocky, 4th. rate.

Timber, Yellow pine and scattering pinon and cedar the the last 68.00 chs.

Undergrowth, dense sage brush the first 12.00 chs.

Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.00 chs.

July 5, 1911.

July 6: At 8h. 04m., a.m., 1.m.t., I set off 37° 48' N. on lat. arc., 22° 47' W. on decl. arc, and determine a meridian with the solar, at hte cor. of secs. 4-5-8 and 9.

Thence I run

S. 89° 56' E. on a random line, bet. secs. 4 and 9.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.92 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 3-4-9 and 10.

Thence I run

N. 89° 58' W on a true line,

Bet. secs. 4 and 9.

- 75.175 Gradual descent over rolling and rocky land, through dense undergrowth.
- 76.72 Top of ledges, bears NW. and SE.
Abrupt descent over sandstone ledges.
- 14.78 Long Canyon, 90 ft. deep, course SE.
Abrupt ascent.
- 18.32 Top of sandstone ledges, bears NW. and SE.
Gradual ascent over rolling mesa.
- 28.40 State Road, from Monticello to Grayson, bears NE. and SW.
- 37.76 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S $\frac{1}{4}$ on N. side, $\frac{3}{4}$ on S. side, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
Pile impracticable.
- 79.92 The cor. of secs. 4-5-8 and 9.
Land, rolling.
Soil, rocky and broken ledges for the first 15.00 chs.
4th. rate, balance: sandy loam, 20 to 25 ins deep
1st. rate.
No timber.
Undergrowth, sage brush.
Land covered with dense undergrowth on 79.92 chs.
July 6: At this cor. I set off $22^{\circ}46'$ N. on decl. arc, and at 9.04 a.m., 1. m. t., observe the sun on the meridian the resulting lat. is $37^{\circ}48'$ N.
-
- 3.0905' N., on a random line, bet. secs. 4 and 5.
- 40.00 Set comp. $\frac{1}{4}$ sec. cor.
- 77.00 Intersect N. by. of Tp. 13 1/2 S. of the cor. of secs. 4-5-8 and 9, which is a porphyry stone, 7x12x6 ins. above ground, marked and witnessed as described by the surveyor's manual.
Thence I ran
3.0911' N. on a true line,
3 1/2. secs. 4 and 5.
Gradual descent over rolling and rocky land, through dense undergrowth.

CHAINS

- 39.80 Set an iron post, 3 ft. long, 1 in. dia. 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 5 on W. half, S 4 \checkmark on E. half, dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 65.10 Abrupt descent into hollow.
- 67.75 Hollow, 25 ft. deep, course SW.
Abrupt ascent.
- 70.00 Top of abrupt ascent.
Gradual descent.
- 71.10 Enter scattering timber, bears E. and W.
- 79.80 The cor. of secs. 4-5-8 and 9.
Land, rolling.
Soil. rocky loam, 2nd. rate, 10 to 15 ins. deep
Timber, scattering yellow pine, the last 8.70 chs.
Undergrowth, sage brush.
Land covered with dense undergrowth on 79.80 chs.

July 6, 1911

Melvin D. Heist
U.S. Transitionman.

July 1: At 8h. 03m., a.m., l.m.t., I set off $37^{\circ}43'$ N. on lat. arc, $23^{\circ}11'$ N. on decl. arc, and determine a meridian with the solar at the re-established stan. cor. of secs. 31 and 32, heretofore described on the Seventh Standard Parallel South.

Thence I run

N. $0^{\circ}12'$ W., bet. secs. 31 and 32.

Gradual ascent over rolling land, through heavy timber.

- 15.75 Begin abrupt descent over sandstone ledges, bearing NE. and SW.

- 28.00 Hollow, 150 ft. deep, course SW.

Abrupt ascent over ledges.

- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 31 on W.

SUBDIVISIONS OF T. 35 S., R. 23 E.

CHAINS

half S 32 on E. half, from which

A cedar, 9 ins. dia., bears S. $34^{\circ}35'W.$, 59 lks. dist.,
marked $\frac{1}{4}$ S 31 BT.

A cedar, 13 ins. dia., bears N. $66^{\circ}55'E.$, 23 lks. dist.,
marked $\frac{1}{4}$ S 32 BT.

54.75 Top of abrupt ascent, bears NE. and SW.

Gradual ascent over rolling mesa.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground

for cor. of secs. 29-30-31 and 32, marked on brass cap

T 35 S S 30 in NW.,

R 23 E S 29 in NE.,

S 32 in SE. and S 31 in SW. quadrant, from which

A cedar, 20 ins. dia., bears S. $62^{\circ}29'W.$, 128 lks. dist.,
marked T 35 S R 23 E S 31 BT.

A cedar, 4 ins. diam., bears N. $85^{\circ}35'W.$, 123 lks. dist.,
marked T 35 S R 23 E S 30 BT.

A cedar, 4 ins. diam., bears N. $36^{\circ}14'W.$, $75\frac{1}{2}$ lks. dist.,
marked T 35 S R 23 E S 29 BT.

A pinon, 6 ins. diam., bears S. $25^{\circ}32'W.$, 277 lks. dist.,
marked T 35 S R 23 E S 32 BT.

Land, rolling and mountainous.

Soil, rocky loam, 20 ins. deep, 2nd. rate on mesas, broken
sandstone ledges, 4th. rate on balance.

Timber, heavy cedar and pinon.

Mountainous land or heavily timbered land on 80.00 chs.

July 1: At this cor. I set off $23^{\circ}10'N.$ on decl. arc, and
at Oh. $03^m.$, P.M., 1.M.T., observe the sun on the meridian,
the resulting lat. is $37^{\circ}44'N.$

East, on a random line, bet. secs. 29 and 32.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.08 Intersect N. and S. line, at the cor. of secs. 28-29-32 and 33

July 1, 1911

July 3: At 8h. $04^m.$, A.M., 1.M.T., I set off $37^{\circ}44'N.$ on lat.
arc, $23^{\circ}03'N.$ on decl. arc, and determine a meridian with
the solar at the cor. of secs. 28-29-32 and 33.

SUBDIVISIONS OF T. 35 S., R. 23 E.

CHAINS	
	Thence, I run West, on a true line, bet. secs. 29 and 32.
	Over rolling and rocky land, through heavy burnt timber.
6.00	Enter heavy live timber, bears NW. and SE.
18.60	Begin abrupt descent over sandstone ledges, bearing NE. and SW.
23.59	Hollow, 100 ft. deep, course SE. Abrupt ascent over ledges.
28.00	Top of ledges, bearing NE. and SW. Gradual ascent over rolling land.
40.04	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 29 on N. half, S 32 on S. half, from which A cedar, 5 ins. diam., bears N. 47° 46' W., 73 lks. dist., marked $\frac{1}{4}$ S 29 BT. A cedar, 8 ins. diam., bears S. 49° 33' E., 199 lks. dist., marked $\frac{1}{4}$ S 32 BT.
60.00	Abrupt descent over sandstone ledges, bearing NE. and SW.
64.00	Hollow, 75 ft. deep, course SW. Abrupt ascent, over ledges.
66.80	Top of ledges, bearing NE. and SW. Over rolling land.
80.08	The cor. of secs. 29-30-31 and 32. Land, rolling and mountainous. Soil, rocky loam, 24 ins. deep, 2nd. rate on mesas; balance, sandstone ledges, 4th. rate. Timber, cedar and pinon. Undergrowth, sage brush. Land covered with dense undergrowth, heavily timbered land or mountainous land on 80.08 chs.
	West, on a random line, bet. secs. 30 and 31.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.10	Intersect W. bdy. of Tp., 14 lks. S. of the cor. of secs. 25-30-31 and 36, heretofore described. Thence I run S. 89° 54' E., on a true line,

SUBDIVISIONS OF T.35 S., R.23 E.

CHAINS	
	Bet. secs. 30 and 31.
	Ascend over rolling and rocky land, through dense undergrowth.
3.00	Road to saw mill, bears NE. and SW.
4.50	Enter heavy timber, bears N. and S.
10.00	Telephone line, between Grayson and Monticello, bears NE. and SW.
36.00	Begin abrupt ascent over sandstone ledges bearing NE. and SW.
40.10	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 30 on N. half, S 31 on S. half, from which
	A pinon, 14 ins. dia., bears S. 27° 35' W., 76 lks. dist., marked $\frac{1}{4}$ S 31 BT.
	A pinon, 16 ins. diam., bears N. 35° 10' E., 47 lks. dist., marked $\frac{1}{4}$ S 30 BT.
43.50	Top of a abrupt ascent, bears NE. and SW. Over rolling mesa.
46.10	Begin abrupt descent over sandstone ledges, bears NE. and SE.
48.30	Hollow, 75 ft. deep, course SW. Abrupt ascent.
53.60	Top of abrupt ascent, bears N. and S. Over rolling mesa.
62.70	Begin abrupt descent over sandstone ledges, bearing SW. and NE.
69.00	Hollow, 100 ft. deep, course SW. Abrupt ascent.
72.80	Top of abrupt ascent, bears NE. and SW. Over rolling mesa.
79.00	State road, between Monticello and Grayson, bears NE. and SW.
80.10	The cor. of secs. 29-30-31 and 32. Land, rolling and mountainous. Soil, rocky or sandstone ledges on entire line, 3rd. or 4th. rate. Timber, cedar and pinon.

CHAINS

Undergrowth, sage brush.

Land covered with dense undergrowth, heavily timbered or mountainous land on 80.10 chs.

July 3: At this cor. I set off $23^{\circ}01'N.$ on decl. arc, and at $04^{m.}$, p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}44'N.$

N. $0^{\circ}09'E.$, bet. secs. 29 and 30.

Over rolling land, gradual ascent, through heavy timber.

1.00 State road, between Grayson and Monticello, bears NE. and SW.

9.30 Abrupt descent over sandstone ledge, bears NE. and SW.

21.00 Hollow, 90 ft. deep, course SE., abrupt ascent.

29.30 Leave heavy timber, enter burned timber, bears NE. and SW.

30.10 Top of sandstone ledges, NE. and SW., gradual ascent.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 30° on W. half, S 29° on E. half, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor., pits impracticable.

Gradual ascent, over rolling mesa, through burned timber and dense undergrowth.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 19-20-30 and 29, marked on brass cap, T 35 S S 19 in NW.,

R 23 E S 20 in NE.,

S 29° in SE. and S 30° in SW. quadrant, from which

A cedar, 5 ins. diam., bears N. $60^{\circ}58'E.$ 52 lks.

dist., marked T 35 S R 23 E S 20 BT.

Saw mill bears N. $51^{\circ}39'W.$

No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor., pits impracticable.

Land rolling and mountainous.

Soil, sandy loam, 15 ins deep on mesas, 1st. rate, balance broken ledges and rocky, 4th. rate.

Timber, heavy pinon and cedar, the first 29.30 chs. balance, burned timber, with a few scattering pinon and cedar.

Undergrowth, dense sage brush.

CHAINS

Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.00 chs.

East on a random line ,bet.secs 20 and 29.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.94 Intersect N.and S.line, 9 lks. S.of the cor. of secs. 20-21-28 and 29.

Thence I run

S.89°56'W.,on a true line,

Bet. secs. 20 and 29.

Gradual descent,through dense undergrowth,and scattering timber.

4.00 Hollow, 50 ft. deep,course S.

Abrupt ascent.

5.50 Top of abrupt ascent.bears N.and S.

Gradual ascent over rolling mesa.

39.97 Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S 20 on N. half, S 29 on S. half,from which

A cedar,6 ins.diam.,bears N.58°25'E.389 lks. dist.,marked $\frac{1}{4}$ S 20 BT.

A cedar,5 ins.diam.,bears S.36°38'W.89 lks. dist.,marked $\frac{1}{4}$ S 29 BT

52.50 State Road,from Monticello to Grayson,bears NE.and SW.

79.94 The cor.of secs. 19-20-29 and 30.

Land, rolling mesa,and mountainous.

Soil,broken ledges and rocky,first 5.50 chs.3th.rate.

rocky loam, from 15 to 20 ins. deep on the balance, 2nd rate.

Timber, pinon and cedar.

Undergrowth, sage brush,

Land covered with undergrowth,scattering timbered land on 79.94 chs.

July 3, 1911

CHAINS

July 5: At 8h. 04m., a.m., l.m.t., I set off $37^{\circ}45'$ N. on lat. arc. $22^{\circ}53'$ N. on decl. arc, and determine a meridian with the solar at the cor. of secs. 19-20-29 and 30.

Thence I run

N. $89^{\circ}54'$ W. on a random line, bet. secs 19 and 30.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.29 Intersect W. bdy. of Tp., 14 lks. N. of the cor. of secs. 19-24-25 and 30. heretofore described.

Thence I run

East on a true line,

Bet. secs. 19 and 30.

Gradual descent over rolling and rocky land, through scattering timber and dense undergrowth.

4.80 Begin abrupt descent over sandstone ledges, bearing NE. and SW.

6.15 Foot of ledges, 50 ft. high, bearing NE. and SW.
Descend over broken land and boulders.

38.90 Road to saw mill bears NE. and SW.

40.29 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 19 on N. half, S 30 on S. half, from which

A cedar 8 ins. diam., bears S. $55^{\circ}09'$ W. 27 lks. dist., marked $\frac{1}{4}$ S 30 BT.

A pinon, 5 ins. diam., bears N. $24^{\circ}27'$ W., $65\frac{1}{2}$ lks. dist. marked $\frac{1}{4}$ S 19 BT.

From the $\frac{1}{4}$ sec. cor. a saw mill, bears N. $45^{\circ}10'$ E.

42.80 Telephone line between Grayson and Monticello, bears NE. and SW.

72.80 Recapture Canyon, 150 ft. deep, course SW.

Abrupt ascent over broken sandstone ledges.

79.60 Top of abrupt ascent, bears NE. and SW.

Over rolling land.

Enter heavy timber, bears NE. and SW.

80.29 The cor. of secs. 19-20-29 and 30.

From this cor. the same saw mill bears N. $51^{\circ}39'$ W.

Land, rolling and mountainous.

SUBDIVISIONS OF T.35 S.,R.23 E.

CHAINS	<p>Soil,rocky,broken ledges and boulders on entire line, 3rd.and 4th.rate. Timber,cedar and pinon. Undergrowth,sage brush. Mountainous land,land covered with dense undergrowth or heavily timbered land on 80.29 chs.</p>
	<p style="text-align: center;">N.0°17'E., bet.secs.19 and 20.</p> <p>Gradual descent over rolling land,through heavy timber.</p>
0.40	Begin abrupt descent over sandstone ledges,bearing NE.and SW.
9.60	Recapture Canyon,150 ft.deep,course SW. Ascend over rocky and mountainous land.
30.20	Road to saw mill bears NE.and SW.
31.20	Telephone line,bet.Grayson and Monticello,bears NE.and SW.
34.30	Begin abrupt ascent over sandstone ledges,bearing NE. and SW.
38.00	Top of ledges,bearing NE.and SW. Ascend over rolling land.
40.00	Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S 19 on W.half,S 20' on E.half,from which <p style="margin-left: 40px;">A cedar,13 ins.diam.,bears N.58°29'E.,41 lks. dist.,marked $\frac{1}{4}$ S 20 BT. A pinon,10 ins.diam.,bears S.46°16'W.,4$\frac{1}{2}$ lks.dist. marked $\frac{1}{4}$ S 19 BT.</p> <p>July 5: At this cor.I set off 22°51'N.on decl.arc,and at Oh.04m.,p.m.I.m.t.,observe the sun on the meridian,the resulting lat.is 37°45'N.</p>
48.60	Wire fence bears E.and W.
54.00	Leave timber,bears E.and W.
80.00	Set an iron post,3 ft.long,2 ins.dia.,24 ins.in the ground,for cor.of secs.17-18-19 and 20,marked on brass cap T 35 S 18 in NW., R 23 E S 17 in NE.; S 20 in SE.and S 19 in SW.quadrant, dig pits,18x18x12 ins.in each sec.,5 $\frac{1}{2}$ ft.dist.,and raise a mound of earth,

CHAINS

4 ft. base, 2 ft. high, W. of cor.

Land, rolling and mountainous.

Soil, rocky, sandstone ledges and boulders, on first 38.00 chs., 3rd. and 4th. rate.; balance, sandy loam, from 10 to 24 ins. deep, sloping south, 1st. and 2nd. rate.

Timber, cedar and pinon, on first 54.00 chs.

Heavily timbered land or mountainous land on 54.00 chs.

N. 89° 56' E., on a random line, bet. secs. 17 and 20.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.92 Intersect N. and S. line, 3 lks. N. of the cor. of secs. 16-17-20 and 21.

Thence I run

S. 89° 57' W., on a true line, . . .

Bet. secs. 17 and 20.

Over rolling land, gradual ascent through heavy timber.

12.58 Telephone line, bet. Grayson and Monticello, bears NE. and SW.

15.11 State road, bet. Grayson and Monticello, bears NE. and SW.

39.96 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 17 on N. half, S 20 on S. half, from which

A cedar, 14 ins. diam., bears N. 17° 42' W., 75 lks. dist., marked $\frac{1}{4}$ S 17 BT.

A cedar, 10 ins. diam., bears S. 10° 04' E., 171 lks. dist., marked $\frac{1}{4}$ S 20 BT.

42.66 Begin abrupt descent over sandstone ledges, bearing NE. and SW.

51.19 Recapture Canyon, 150 ft. deep, course SW.
Ascend over rocky and mountainous land.

55.12 Road to saw mill, bears NE. and SW.

60.50 Begin abrupt ascent over sandstone ledges, bearing NE. and SW.

65.50 Top of abrupt ascent, 75 ft. high, bears NE. and SW.
Gradual ascent over rolling mesa.

72.00 Leave timber, bears N. and S.

SUBDIVISIONS OF T.35 S.,R.23 E.

CHAINS

79.92

The cor.of secs.17-18-19 and 20.
 Land,mountainous and rolling.
 Soil,sandy loam,from 12 to 24 ins.deep,1st.and 2nd.rate
 on the mesas; balance, rocky land,broken sandstone
 ledges and boulders,3rd.and 4th.rate.
 Timber,heavy cedar and pinon,on first 72.00 chs.
 Heavily timbered land or mountainous land on 72.00 chs.

July 5, 1911

July 6: At 8h.⁰⁴m.,a.m.,l.m.t.,I set off 37°46'N.on lat.
 arc,22°47'N.on decl.arc,and determine a meridian with
 the solar at the cor.of secs.17-18-19 and 20.

Thence I run

West,on a random line,bet.secs.18 and 19.

40.00

Set temp. $\frac{1}{4}$ sec.cor.

80.58

Intersect the W.bdy.of the Tp.,at the cor.of secs.
 13-18-19 and 24, heretofore described.

Thence I run

East,on a true line,bet.secs.18 and 19.

Over rolling land,gradual descent through heavy timber.

8.75

Old wood road,bears N.ans S.

15.25

Begin abrupt descent over sandstone ledges,bearing N.
 and S.

21.25

Wood road,bears N.and S.,in hollow,75 ft.deep,course S.
 Abrupt ascent.

23.00

Top of abrupt ascent,bears N.and S.
 Over rolling land.

31.00

Begin abrupt descent,over ledges,bearing N.and S.

31.45

Wire fence,bears N.and S.

34.50

Hollow,60 ft.deep,course S.

Abrupt ascent. Leave timber,bears N.and S.

38.75

Top of abrupt ascent,bears N.and S.

Gradual descent over rolling land,through dense under-
 growth.

40.58

Set an iron post,3 ft.long,1 in.dia.,26 ins.in the
 ground,for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S 18° on N.

SUBDIVISIONS OF T.35 S.,R.23 E.

CHAINS

half, S 19 on S. half, and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Pits impracticable.

43.70 Enter cultivated land, bears north about 40.00 chs. and south about 12.00 chs.

67.35 Leave cultivated land, bears N. and S. claimant unknown.

68.48 Wire fence, bears N. and S.

69.90 Road, bears N. and S. leads to cultivated land just described.

80.58 The cor. of secs. 17-18-19 and 20.

Land, rolling and mountainous.

Soil, sandy loam, from 18 to 24 ins. deep, on last 41.83 chs.

balance, rocky, broken ledges and boulders, 3rd. and 4th. rate.

Timber, heavy cedar and pinon on first 34.50 chs.

Undergrowth, sage brush.

Heavily timbered land, mountainous land or land covered with dense undergrowth on 43.70 chs.

North, bet. secs. 17 and 18.

Over rolling land, gradual ascent through dense undergrowth.

26.50 Begin abrupt descent over sandstone ledges, bearing NW. and SE.

Enter heavy timber, bears NW. and SE.

31.00 Hollow, 75 ft. deep, course SE.

Abrupt ascent.

34.00 Top of abrupt ascent, bears NW. and SE.

Ascend over rolling and rocky land.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap, ¼ S 18 on W. half, S. 17 on E. half, from which

A pine, 20 ins. diam., bears N. 39° 54' E., 45 lks. dist. marked ¼ S 17 BT.

A pine, 21 ins. diam., bears S. 37° 51' W., 67 lks. dist., marked ¼ S 18 BT.

42.46 Wire fence, bears E. and W.

SUBDIVISIONS OF T.35 S.,R.23 E.

CHAINS

- 75.00 Begin abrupt descent over sandstone ledges, bearing NW. and SE.
- 77.40 Bull dog Canyon, 100 ft. deep, course SE.
Abrupt ascent.
- 80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 7-8-17 and 18, marked on brass cap, T 35 S S' 7 in NW., R 23 E S' 8 in NE., S 17' in SE. and S 18' in SW. quadrant, from which
 A pine, 18 ins. diam., bears N. 20° 45' E., 72 lks. dist., marked T 35 S R 23 E S' 8 BT.
 A pine, 16 ins. diam., bears S. 56° 08' E., 176 lks. dist., marked T 35 S R 23 E S 17' BT.
 A pine, 22 ins. diam., bears S. 83° 29' W., 101 lks. dist., marked T 35 S R 23 E S 18' BT.
 A pine, 24 ins. diam., bears N. 12° 32' W., 78 lks. dist., marked T 35 S R 23 E S 7' BT.
- Land rolling and mountainous.
 Soil, sandy loam, 24 ins. deep, 1st. rate on first 26.50 chs. balance, rocky, broken sandstone ledges and boulders, 4th. rate.
 Timber, cedar, pinon and yellow pine.
 Heavily timbered land or mountainous land on 80.00 chs.
 July 6: At this cor. I set off 22° 46' N. on decl. arc, and at 04.04 m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 47' N.
-
- 40.00 N. 89° 57' E., on a random line, bet. secs. 8 and 17.
 Set temp. $\frac{1}{4}$ sec. cor.
- 80.08 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 8-9-16 and 17.
 Thence I run
 S. 89° 55' W., on a true line,
 Bet. secs. 8 and 17.
 Over rolling mesa, through heavy timber.
- 5.00 Begin abrupt descent, bears N. and S.

SUBDIVISIONS OF T.35 S., R.23 E.

CHAINS	
7.00	Hollow, 50 ft. deep, course S. Abrupt ascent.
10.00	Top of abrupt ascent, bears N. and S. Over rolling land.
19.38	Road, NW. and SE.
33.50	Begin abrupt descent over sandstone ledges, bearing NW. and SE.
40.04	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 8 \sqrt on N. half S 17 \sqrt on S. from which A pine, 21 ins. dia., bears N. 59° 29' W., 47 lks. dist., marked $\frac{1}{4}$ S 8 \sqrt BT. A pine, 22 ins. dia., bears S. 24° 06' E., 27 lks. dist., marked $\frac{1}{4}$ S 17 \sqrt BT.
63.00	Recapture Canyon, 150 ft. deep, course SE. Abrupt ascent.
66.98	Road to saw mill, bears NW. and SE.
71.00	Rocky spur, projects SE. Descend.
80.08	The cor. of secs. 7-8-17 and 18. Land, rolling and mountainous. Soil, rocky, broken ledges or boulders, 3rd. and 4th. rate. Timber, cedar, pinon and yellow pine. Mountainous land or heavily timbered land on 80.08 chs.
40.00 80:60	West, on a random line, bet. secs. 7 and 18. Set temp. $\frac{1}{4}$ sec. cor. Intersect W. bdy. of Tp., 9 lks. S. of the cor. of secs. 7-12-13 and 18, heretofore described. Thence I run S. 89° 56' E., on a true line, Bet. secs. 7 and 18.
	Descend over rolling and rocky land, through heavy timber.
32.60	Leave timber, bears N. and S. Enter dense undergrowth.
40.60	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 7 on N. half, S 18 on S. half, dig pits, 18x18x12 ins., E. and W. of post,

CHAINS

3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

July 6, 1911

July 7: At 8h. 05m., a.m., l.m.t., I set off $37^{\circ}47'$ N. on lat. arc, $22^{\circ}41'$ N. on decl. arc, and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. bet. secs. 7 and 18, Thence I continue

S. $89^{\circ}56'$ E., bet. secs. 7 and 18.

66.60 Begin abrupt descent over sandstone ledges, bearing NW. and SE.

75.16 Bull dog Canyon, 100 ft. deep, course SE.
Enter heavy timber, bears NW. and SE.
Abrupt ascent.

80.60 The cor. of secs. 7-8-17 and 18.
Land, rolling and mountainous.
Soil, rocky or broken ledges, 3rd. or 4th. rate.
Timber, cedar, pinon and yellow pine.
Undergrowth, oak brush and sage brush.
Heavily timbered land, land covered with dense undergrowth or mountainous land on 80.60 chs.

N. $0^{\circ}19'$ W., bet. secs. 7 and 8.

Ascend over rocky and mountainous land, through heavy timber.

18.27 Rocky ridge, bears NW. and SE.
Descend.

21.00 Hollow, 50 ft. deep, course SE.
Ascend over broken land.

32.80 Road to saw mill, bears E. and W.

34.00 Begin abrupt ascent over sandstone ledges, bearing NW. and SE.

36.50 Top of ledges, 50 ft. high, bearing NW. and SE.
Ascend over rolling and rocky land.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 7 on W. half, S 8 on E. half, from which

SUBDIVISIONS OF T.35 S.,R.23 E.

CHAINS

A pine, 17 ins. dia., bears S. 25° 52' E., 114 lks. dist.,
marked $\frac{1}{4}$ S 8 BT.

A cedar, 7 ins. dia., bears N. 45° 25' W., 143 lks. dist.,
marked $\frac{1}{4}$ S 7 BT.

57.00 Begin abrupt descent, bears NW. and SE.

61.00 Hollow, 75 ft. deep, course SE.

Abrupt ascent.

62.50 Top of abrupt ascent, bears NW. and SE.

Ascend over rolling land.

74.50 Begin abrupt descent, bears NW. and SE.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the
ground, for cor. of secs. 5-6-7 and 8, marked on brass cap,

T 35 S S 6 in NW.,

R 23 E S 5 in NE.,

S 8 in SE. and S 7 in SW. quadrant, from which

A pine, 30 ins. dia., bears N. 81° 27' E., 38 lks. dist.,
marked T 35 S R 23 E S 5 BT.

A pine, 28 ins. dia., bears S. 25° 37' E., 155 lks. dist.,
marked T 35 S R 23 E S 8 BT.

A pine, 20 ins. dia., bears S. 34° 32' W., 153 lks. dist.,
marked T 35 S R 23 E S 7 BT.

A pine, 12 ins. dia., bears N. 27° 05' W., 130 lks. dist.,
marked T 35 S R 23 E S 6 BT.

Land, mountainous and rolling.

Soil, rocky and broken ledges, 3rd. and 4th. rate.

Timber, cedar, pinon and yellow pine.

Mountainous land or heavily timbered land on 80.00 chs.

July 7: At this cor. I set off 22° 40' N. on decl. arc, and
at 0h. 05m., p.m., l.m.t., observe the sun on the meridian,
the resulting lat. is 37° 48' N.

N. 89° 56' W., on a random line, bet. secs. 6 and 7.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.10 Intersect W. bdy. of Tp., 5 lks. N. of the cor. of secs. 1-6-7
and 12, heretofore described.

Thence I run

CHAINS

S.89°58'E., on a true line,

Bet.secs.6 and 7.

Descend over rocky land,through dense undergrowth and scattering yellow pine timber.

7.28 Begin abrupt descent over sandstone ledges,bearing NW. and SE.

32.30 Bull dog Canyon,100 ft.deep,course SE.
Ascend.

33.68 South end of saw mill,belong to a company in Grayson, on line.

37.63 Road to saw mill,bears NW.and SE.

40.10 Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S $\frac{1}{6}$ on N. half,S $\frac{1}{7}$ on S.half,from which

A pine,28 ins.diam.,bears N.18°49'E.,195 lks.dist., marked $\frac{1}{4}$ S $\frac{1}{6}$ BT.

A pine,24 ins.diam.,bears S.82°58'E.,169 lks.dist., marked $\frac{1}{4}$ S $\frac{1}{7}$ BT.

42.00 Begin abrupt ascent over sandstone ledges,bearing NW. and SE.

45.53 Top of ledges,75 ft.high,bears NW.and SE.
Enter heavy timber,bears NW.and SE.
Descend over rolling and rocky land.

76.00 Abrupt descent over sandstone ledges,bearing NW.and SE.

80.10 The cor.of secs.5-6-7 and 8.

Land,mountainous and rolling.

Soil,rocky and broken sandstone ledges,3rd.and 4th.rate.
Timber, yellow pine and scattering cedar and pinon.

Undergrowth,sage,brush and oak brush.

Land covered with dense undergrowth,mountainous land or land covered with dense undergrowth on 80.10 chs.

July 7, 1911

Eben B. Andrews
U.S.Transitman

CHAINS

July 7: At 2h.05m.,p.m.,1.m.t.,I set off $37^{\circ}48'$ N.on lat. arc, $22^{\circ}39'$ N.on decl.arc,and determine a meridian with solar at the cor.of secs.5-6-7 and 8.

Thence I run

N. $89^{\circ}55'$ E.,on a random line,bet.secs.5 and 8.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

80.14 Intersect N.and S.line,12 lks.N.of the cor.of secs. 4-5-8 and 9.

Thence I run

West,on a true line,bet.secs.5 and 8.

Gradual descent over rocky land,through dense undergrowth and scattering yellow pine timber.

3.00 Begin abrupt descent over sandstone ledges,bearing NE.and SW.

4.45 Hollow,80 ft.deep,course SW.
Ascend.

7.50 Point of rocky spur,projects S.
Descend.

10.50 Devils Canyon,150 ft.deep,course SE.
Abrupt ascent.

13.00 Top of abrupt ascent,bears NW.and SE.
Ascend over rolling land.

39.46 Road,bears NW.and SE.

40.07 Set an iron post,3 ft.long,1 in.dia.26 ins.in the ground, for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S 5° on N.half,S $\frac{1}{8}$ on S.half,from which

A pine,16 ins.diam.,bears N. $5^{\circ}43'$ W.,120 lks.dist., marked $\frac{1}{4}$ S 5° BT.

No other trees within limits and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.

Pits impracticable.

54.00 Begin abrupt descent over sandstone ledges,bearing N. and S.

60.00 Hollow,75 ft.deep,course S.
Abrupt ascent.

66.00 Top of abrupt ascent,bears N.and S.

SUBDIVISIONS OF T.35 S., R.23 E.

CHAINS

- Ascend over rolling land.
- 74.24 Begin abrupt descent over sandstone ledges, bearing NW. and SE.
- 78.10 Recapture Canyon, 150 ft. deep, course SE.
Abrupt ascent.
- 80.14 The cor. of secs. 5-6-7 and 8.
Land, rolling and mountainous.
Soil, rocky and broken ledges, 3rd. and 4th. rate.
Timber, scattering yellow pine.
Undergrowth, sage brush and oak brush.
Land covered with dense undergrowth or heavily timbered land on 80.14 chs.
-
- 40.00 N. 0°05' W., on a random line, bet. secs. 5 and 6
Set temp. $\frac{1}{4}$ sec. cor.
- 79.95 Intersect N. bdy. of Tp., 35 lks. E. of the cor. of secs. 5-6-31 and 32, which is a sandstone, 8x15x6 ins. above ground, marked and witnessed as described by the surveyor general.
Thence I run
S. 0°20' E., on a true line,
Bet. secs. 5 and 6.
Abrupt descent over rocky and mountainous land, through heavy timber.
- 3.00 Devils Canyon, 150 ft. deep, course SE.
Abrupt ascent.
- 7.15 Top of abrupt ascent, bears NW. and SE.
Descend over rolling land.
- 17.50 Road, bears NW. and SE.
- 24.50 Begin abrupt descent over ledges, bearing NW. and SE.
- 27.50 Hollow, 50 ft. deep, course SE.
Abrupt ascent.
- 31.50 Top of abrupt ascent, bears NW. and SE.
Descend over rolling land.
- 39.95 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 6 on W. half, S 5

CHAINS

on E. half, from which

A pine, 16 ins. diam., bears N. 49° 50' E., 50 lks. dist.,
marked $\frac{1}{4}$ S $\frac{1}{5}$ BT.

A pine, 20 ins. diam., bears S. 66° 41' W., 113 lks. dist.,
marked $\frac{1}{4}$ S 6 BT.

69.67 Begin abrupt descent over sandstone ledges, bearing NW.
and SE.

71.50 Recapture Canyon, 150 ft. deep, course SE.

Abrupt ascent.

79.95 The cor. of secs. 5-6-7 and 8.

Land, mountainous and rolling.

Soil, rocky and sandstone ledges, 3rd. and 4th. rate.

Timber, yellow pine, cedar and pinon.

Heavily timbered land or mountainous land on 79,95 chs.

July 7, 1911

Meham D. Heist
U.S. Transitman

GENERAL DESCRIPTION.

This township is situated at the foot and on the south-east side of the Abajo Mountainous and the slope is generally to the south east and is cut by many hollows and canyons.

The formation is sandstone, which crops out on the sides of all hollows and canyons, and the mesas between the canyons, is generally a sandy loam, from 4 to 24 ins. deep, on the solid sandstone,

The northwest portion of the township is mountainous in character and the soil is rocky loam, unfit for any purpose but grazing, while the mesas on the balance of the township, where conditions are favorable, in the soil being over 12 ins. deep, dry farming is successful.

Dry farming is successfully conducted in sec. 11 and NE. $\frac{1}{4}$ sec. 14, by K. S. Jones and K. Jones of Monticello, Utah. Acres of land under cultivation, 200.

Other than fencing and cultivation they have no other improvements.

In SE $\frac{1}{4}$ Sec.18 and NE $\frac{1}{4}$ Sec.19, another dry farm is operated ,by parties living in Grayson,Utah,the names of which we could not discover.

Acres of land under cultivation,140.

Their improvements consist of fencing and cultivation, and their enclosure extends into SW $\frac{1}{4}$ Sec.17 and NW $\frac{1}{4}$ Sec. 20.

The land on the mesas is especially adapted for dry farming inasmuch as the precipitation averages over 20 inches per annum.

A heavy growth of cedar and pinon timber is found along the rims of the canyons ,while yellow pine of merchantable value is found in the northwestern portion of the township,while the balance of the township is covered with a dense growth of sage brush.

There are several seeping springs along the bottoms of the canyons,none of which are regular or flow in large quantities and are not located so that they could be seen from any line.

The telephone line between Grayson and Monticello and the newly constructed state road between the same places cross this township.

There are no settlers living in this township, on account of the lack of water.

There are no indications of coal,oil or minerals found in this township.

Melvin D. Heist

Eben B. Andrews
U.S. Transitmen

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for bearing date of the _____ day of _____, 191____, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oaths or transmission see book "2" - T. 32 S. - R. 28 E.

_____ of the _____ Meridian, in the State of _____, which are represented the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 19, 191____

The foregoing field notes of the survey of the subdivisional lines of Township No. 35 South Range No. 23 East of the Salt Lake Base and Meridian, Utah.

examined by **Melvin D. Heint and Eben B. Andrews** under their special instructions dated **May 22,** 191____, having critically examined, and the necessary corrections and explanations made, the said field notes, and surveys they describe, are hereby approved.

Francis H. ...
U. S. Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys is _____, has been correctly copied from the original notes on file in this office.

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FIELD NOTES

RECOVERY
OF THE SURVEY OF THE

SEVENTH STANDARD PARALLEL SOUTH,

through

RANGE NO. 24 EAST,

Of the Salt Lake Base and Meridian,

In the State of Utah.

EXECUTED BY

Melvin D. Heist, and Eben H. Andrews,

Transitman

In the capacity of U. S. Surveyor, under instructions dated May 22, 1911,
issued by the United States Surveyor General to govern surveys included in
Group No. 12, which were approved by the Commissioner of the General Land
Office, June 17, 1911, pursuant to authority contained in the Act of
Congress dated 1911.

Survey commenced July 10, 1911

Survey completed July 12, 1911

11-100-00

INDEX DIAGRAM.

Township 35 south, Range 24 East,

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
			2	3	4

Survey commenced July 10, 1911, and executed with the instrument described in book "A", of this survey.

I examine the adjustments of the transit and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At the Stan. cor. of secs. 33 and 34, Tp. 35 S., R. 24 E. on the Seventh Standard Parallel South, which is a sandstone 6x10x3 ins. above ground, marked and witnessed as described by the surveyor general, in approximate latitude $37^{\circ}43'N.$, longitude $109^{\circ}19'W.$, I set off $37^{\circ}43'N.$ on lat. arc., $22^{\circ}18'N.$ on decl. arc, and at 4h.05m., p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

July 10, 1911

July 11: At 0h.20m., a.m., l.m.t., I observe Polaris at eastern elongation in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 7 a.m., I lay off the azimuth of Polaris, $1^{\circ}28'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.3 ins. west of the mark determined by the solar.

At 8h.05m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on lat. arc. $22^{\circ}14'N.$ on decl. arc, and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.4 ins. west of the meridian established by the Polaris observation. The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about $0'.16''$ east and $0'.21''$ west of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h.30m., a.m. is $N.15^{\circ}40'W.$, the angle thus determined gives the

RESURVEY OF THE SEVENTH STANDARD PARALLEL SOUTH, through R. 24 E.

CHAINS

mag. dec. $15^{\circ}40'E$.

Preliminary to resurveying the Seventh Standard Parallel South, I retrace that portion of the resurveyed line on which no subdivisions depend, as follows:

From the stan. cor. of secs. 33 and 34, heretofore described I run, East, along the S. bdy. of sec. 34., at 40.00 chs., intersect the stan. $\frac{1}{4}$ sec. cor., which is a sandstone, 5x10x4 ins. above ground, marked and witnessed as described by the surveyor general.

Thence I run

East, resurveying on S. bdy. of sec. 34.

Gradual descent over mesa, through heavy timber.

16.12 Begin abrupt descent over sandstone ledges, bearing NW. and SE.

20.61 The witness cor. to stan. cor. of secs. 34 and 35, I destroy all traces of witness cor.

21.20 Foot of ledges, 150 ft. high, bearing NW. and SE.

Gradual descent over rolling mesa.

Difference bet. measurement of 40.00 chs., by two sets of chainmen 8 lks., position of middle point

By 1st. set, 40.04 chs.,

By 2nd. set, 39.96 chs., the mean of which is

40.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established stan. cor. of secs. 34 and 35, marked on brass cap, T 35 S S 34 in NW.,

R 24 E S 35 in NE., from which

A cedar, 8 ins., diam., bears $N. 53^{\circ}07'E$, 51 lks. dist., marked T 35 S R 24 E S 35 BT.

A cedar, 8 ins. diam., bears $N. 33^{\circ}35'W$, 50 lks. dist., marked T 35 S R 24 E S 34 BT.

Land, rolling mesa and mountainous.

Soil, sandy loam, 2nd. rate, 10 ins. deep, on solid sandstone on the mesa; balance, sandstone ledges, 4th. rate.

subsoil, solid sandstone.

Timber, heavy cedar and pinon.

Heavily timbered land or mountainous land on 40.00 chs.

After diligent search no trace can be found of the old c

CHAINS

July 11: At this cor. I set off $22^{\circ}12'N$. on decl. arc, and at 0h. 05m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}43'N$.

East, resurveying on S. bdy. of sec. 35.

Gradual descent over rolling and rocky mesa, through heavy timber.

32.40 Begin abrupt descent over sandstone ledges, bearing N. and S.

35.15 Hollow, 50 ft. deep, course N.

Abrupt ascent over ledges.

37.00 Top of abrupt ascent, bears NE. and SW.

Gradual descent over rolling mesa.

Difference bet. measurement of 40.00 chs., by two sets of chainmen is 6 lks., position of middle point

By 1st. set, 39.97 chs.,

By 2nd. set, 40.03 chs., the mean of which is

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for re-established stan. $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 35 on N. half, from which

A cedar, 8 ins. diam., bears $N. 20^{\circ}15'E$., 21 lks. dist., marked $\frac{1}{4}$ S 35 SC BT.

A pinon, 10 ins. diam., bears $N. 87^{\circ}00'W$., 130 lks. dist., marked $\frac{1}{4}$ S 35 SC BT.

No trace can be found of the old stan. $\frac{1}{4}$ sec. cor.

52.90 Begin abrupt descent over sandstone ledges, bearing NW. and SE.

73.70 Foot of ledges, 527 ft. below top, bearing NW. and SE. Leave timber, bears NW. and SE.

Over level bottom of Montezuma Canyon, through dense undergrowth.

76.82 Montezuma Creek, 14 lks. wide, 12 ins. deep, course SE.

Difference bet. measurement of 80.00 chs., by two sets of chainmen is 12 lks., position of middle point

By 1st. set, 80.06 chs.,

By 2nd. set, 79.94 chs., the mean of which is

80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established stan. cor. of secs. 35 and 36,

CHAINS	
	<p>marked on brass cap,</p> <p>T 35 S S 35 in NW. and R 24 E S 36 in NE. quadrant, dig pits, 24x18x12 ins., crosswise on each line, E. and W., 3 ft., and N. of cor. 7 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, N. of cor.</p> <p>After diligent search no trace can be found of the old stan. sec. cor.</p> <p>Land, mountainous, rolling and level.</p> <p>Soil, broken ledges and rocky the first 73.70 chs. 4th. rate balance: sandy loam from from 5 to 8 ft. deep in the bottom of Montezuma Canyon. 1st. rate. sandstone subsoil.</p> <p>Timber, heavy cedar and pinon the first 73.70 chs.</p> <p>Undergrowth, dense sage brush the last 6.30 chs. in bottom of canyon.</p> <p>Heavily timbered land and land covered with dense under- growth on mountainous land on 80.00 chs.</p> <p>July 11, 1911</p>
<p>21.66</p> <p>22.50</p> <p>35.10</p>	<p>July 12: At 8h.05m., a.m., l.m.t., I set off 37°43' N. on lat. arc, 22°06' N. on decl. arc, and determine a meridian with the solar at the stan. cor. of secs. 35 and 36.</p> <p>Thence I run</p> <p>East, resurveying on S. bdy. of sec. 36.</p> <p>Over level land in bottom of Montezuma Canyon, through dense undergrowth.</p> <p>Leave canyon bottom.</p> <p>Begin abrupt ascent over sandstone ledges, bearing N.W. and S.E.</p> <p>Enter heavy timber, bearing NW. and SE.</p> <p>Top of ledges, 650 ft. above sec. cor., bearing NW. and SE.</p> <p>Gradual ascent over rolling mesa.</p> <p>Difference bet. measurement of 40.00 chs., by two sets of chainmen is 10 lks., position of middle point</p> <p>By 1st. set. 40.05 chs.,</p> <p>By 2nd. set, 39.95 chs., the mean of which is</p>

CHAINS

- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 36 on N. half, from which
- A cedar, 10 ins. diam., bears N. 21° E., 27 lks. dist., marked $\frac{1}{4}$ S 36 SC. BT.
- A pinon, 8 ins. diam., bears N. 63° W., 101 lks. dist., marked $\frac{1}{4}$ S 36 SC. BT.
- After diligent search, no trace can be found of the old stan. $\frac{1}{4}$ sec. cor.
- 65.00 Begin abrupt descent, bears N. and S.
- 66.50 Hollow, 150 ft. deep, course S.
Abrupt ascent.
- 67.75 Top of abrupt ascent, bears N. and S.
Over rolling mesa.
- 75.10 Begin abrupt descent over sandstone ledges, bearing NE. and SW.
- Difference bet. measurement of 80.00 chs., by two sets of chainmen is 12 lks., position of middle point
- By 1st. set, 80.06 chs.,
- By 2nd. set, 79.94 chs., the mean of which is
- 80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established stan cor. of Tp. 35 S., Rs. 24 and 25 E., marked on brass cap, T 35 S on N. half, R 24 E S 36 in NW., and R 25 E S 31 in NE. quadrant, from which
- A cedar, 5 ins. diam., bears N. 54° E., 9 lks. dist., marked T 35 S R 25 E S 31 BT.
- A cedar, 14 ins. diam., bears N. 21° 25' W., 4 lks. dist., marked T 35 S R 24 E S 36 BT.
- After diligent search no trace can be found of the old stand. sec. cor.
- Land, level, mountainous and rolling.
- Soil, rich sandy loam, from 5 to 10 ft. deep, 1st. rate on first 21.66 chs. balance solid sandstone ledges, with thin sandy soil, from 2 to 4 ins. deep, 4th. rate.
- Timber, heavy cedar and pinon on last 57.50 chs.

CHAINS

Undergrowth, dense sage brush on first 21.66 chs.
Land covered with dense undergrowth, mountainous land,
or heavily timbered land on 80.00 chs.

July 12, 1911

For General Description see Subdivisions of T.35 S., R.
24 E.

For table of latitudes and departures, see resurvey of
E.bdy. of T.35 S., R.24 E.

Melvin D. Heist

U.S. Transitman

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____ U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 _____, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of transitman see Book 1521 P. T., 22 S., R. 28 E.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191 _____



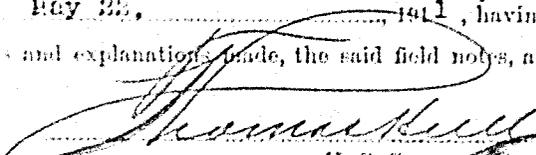
APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 19, 1914

The foregoing field notes of the survey of ^{PC} the Seventh Standard Parallel South through Range No. 24 East of the Salt Lake Base and Meridian, Utah

executed by Melvin L. Holst under his special instructions dated May 23, 1911, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.


U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.

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BOOK A-394

" F "

M.D.B.

FIELD NOTES

RESURVEY
OF THE ~~SURVEY~~ OF THE

E A S T B O U N D A R Y

of

TOWNSHIP NO. 35 SOUTH, RANGE NO. 24 EAST,

Of the Salt Lake Base and Meridian,

In the State of Utah

EXECUTED BY

Melvin D. Heist and Eben B. Andrews,

In the capacity of U. S. ^{Transitmen} ~~Surveyors~~, under instructions dated May 22, 1911,
issued by the United States Surveyor General to govern surveys included in
Group No. 12, which were approved by the Commissioner of the General Land
Office, June 17, 1911, pursuant to authority contained in the Act of
Congress dated _____, 1911.

Survey commenced July 12, 1911

Survey completed July 18, 1911

BOOK A-394

INDEX DIAGRAM.

Township 35 south,, Range 24 East.

6	5	4	3	2	1	1
7	8	9	10	11	12	3
18	17	16	15	14	13	4
19	20	21	22	23	24	5
30	29	28	27	26	25	6
31	32	33	34	35	36	8

CHAINS

Survey commenced, July 12, 1911, and executed with the instrument described in book "A", of this survey.

I know the instrument to be in adjustment from recent observations made at the stan.cor.of secs.33 and 34, on the Seventh Standard Parallel South on July 10 and 11, 1911, and recorded in book "E", of this survey.

From the re-established stan.cor.of Tps.35 S.,Rs.24 and 25 E.,heretofore described, I run

North, retracing along the E.bdy.of T.35 S.,R.24 E., at 40.00 chs., no trace can be found of the $\frac{1}{4}$ sec.cor.bet. secs.31 and 36 and at 80.00 chs.no trace can be found of the cor.of secs.25-30-31 and 36. I continue my line north and can find no trace of any cor.until at 479.94 chs., intersect S.bdy.of T.34 S.,R.24 E., 180 lks.W.of the cor.of Tps.34 and 35 S.,Rs.24 and 25 E., which is a sandstone, 12x14x6 ins.above ground, marked and witnessed as described by the surveyor general.

The falling answers to a correction of $0^{\circ}13'$ or 30 lks.

W.per mile counting from the NE.cor.of the Tp.

There being no subdivisions dependent on this line, I resurvey this as follows:

July 15, 1911

July 17: At 8h.06m., a.m., l.m.t., I set off $37^{\circ}49'$ N. on lat. arc, $21^{\circ}31'$ N. on decl. arc, and determine a meridian with the solar at the cor.of Tps.34 and 35 S.,Rs.24 and 25 E. heretofore described.

Thence I run

S. $0^{\circ}13'$ W., resurveying bet.secs.1 and 6.

Gradual ascent over rolling mesa, through dense undergrowth.

39.94 Set an iron post, 3 ft.long, 1 in.dia., 26 ins.in the ground, for re-established $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 1 on W.half, S 6 on E.half, dig pits, 18x18x12 ins., N.and S.of post, 3 ft.dist., and raise a mound of earth, $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft.high, W.of cor.

CHAINS

After diligent search no trace can be found of the old $\frac{1}{4}$ sec.cor.

50.93 Enter heavy timber, bears E. and W.

64.00 Begin abrupt descent over sandstone ledges, bearing NE. and SW.

72.15 Foot of ledges, 175 ft. high, bearing NE. and SW.
Descend.

79.94 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established cor. of secs. 1-6-7 and 12, marked on brass cap, T 35 S on N. half,

R 24 E S 1^v in NW.,

R 25 E S 6^v in NE.,

S 7^v in SE. and S 12^v in SW. quadrant, from which

A pinon, 6 ins. diam., bears N. 19° 20' E., 25 lks. dist., marked T 35 S R 25 E S 6^v BT.

A pinon, 10 ins. diam., bears S. 7° E., 24 lks. dist., marked T 35 S R 25 E S 7^v BT.

A pinon, 6 ins. diam., bears S. 59° W., 60 lks. dist., marked T 35 S R 24 E S 12^v BT.

A cedar, 10 ins. diam., bears N. 63° W., 96 lks. dist., marked T 35 S R 24 E S 1^v BT.

After diligent search no trace can be found of the old sec.cor.

Land, rolling mesa and mountainous.

Soil, sandy loam, 1st rate from 12 to 24 ins. deep, on first 64.00 chs. balance sandstone ledges, 4th. rate subsoil, solid sandstone.

Timber, heavy cedar and pinon on last 29.07 chs.

Undergrowth, sage brush.

Land covered with dense undergrowth, heavily timbered land or mountainous land on 79.94 chs.

July 17: At this cor. I set off 21° 19' N. on decl. arc, and at 0h. 06m., p.m., l.m.t., observe the sun on the meridian the resulting lat. is 37° 48' N.

RESURVEY OF THE EAST BOUNDARY OF T.35 S., R.24 E.

CHAINS

S.0°13'W., resurveying bet. secs. 7 and 12.

Descend over rocky and mountainous land, through heavy timber.

21.00 Hollow, 150 ft. below sec. cor., course SE., heads 10.00 chs. NW. Abrupt ascent.

28.65 Spur, projects SE.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. dia., ^{12 ins. in ground with} ~~1 in. dia.~~ mound of stone and earth, for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{2}$ S 12 on W. half, S 7 on E. half, from which

A cedar, 8 ins. diam., bears N.85°30'W. 47 lks. dist., marked $\frac{1}{2}$ S 12 BT.

A pinon, 5 ins. diam., bears S.88°30'E., 20 lks. dist., marked $\frac{1}{4}$ S 7 BT.

Note:

On account of natural obstacles it is impossible to set this post over 12 ins. in the ground.

After diligent search, no trace can be found of the old $\frac{1}{4}$ sec. cor.

45.90 Hollow, 180 ft. deep, course SE.

Abrupt ascent.

57.75 Top of abrupt ascent, bears NE. and SW.

Begin abrupt descent over sandstone ledges, bearing NE. and SW.

80.00 Point for cor. falls in the bottom of Pearson Canyon, 650 ft. deep, course SW.

Impossible to set cor. at this point, I therefore at a point 2.50 chs. south of this point, set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for witness cor. for cor. of secs. 7-12-13 and 18, marked on brass cap,

WC T.35 S on N. half,

R 24 E S 12 in NW.,

R 25 E S 7 in NE.,

S 18' in SE. and S 13 in SW. quadrant, from which

A cedar, 8 ins. diam., bears S.62°33'W., 32 lks. dist., marked T 35 S R 24 E S 13 BT.

RESURVEY OF THE EAST BOUNDARY OF T.35 S.,R.24 E.

CHAINS

A pinon, 5 ins. diam., bears S. 64° 30' E., 12 lks. dist.,
marked T 35 S R 25 E S 18 BT.

And raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
No other trees within limits.
Pits impracticable.

No trace can be found of the old sec. cor.

Land, mountainous.

Soil, rocky and sandstone ledges, 3rd. and 4th. rate.

Timber, cedar and pinon.

Mountainous land and heavily timbered land on 80.00 chs.

From the point for cor. of secs. 7-12-13 and 18, I run
S. 0° 13' W., resurveying bet. secs. 13 and 18.

Ascend over rocky and mountainous land, through heavy
timber.

2.50 The witness cor. to cor. of secs. 7-12-13 and 18, just
described'

26.00 Top of abrupt ascent, bears NE. and SW., 625 ft. above sec.
cor.

Gradual ascent over rolling mesa.

40.00 Set an iron post, 3 ft. long, 1 in dia., 26 ins. in the
ground, for re-established $\frac{1}{4}$ sec. cor., marked on brass cap
 $\frac{1}{4}$ S 13 on W. half, S 18 on E. half, from which

A pinon, 10 ins. diam., bears N. 14° E., 36 lks. dist.,
marked $\frac{1}{4}$ S 18 BT.

A pinon, 6 ins. diam., bears S. 79° 57' W., 25 lks. dist.,
marked $\frac{1}{4}$ S 13 BT.

43.00 No trace can be found of the old $\frac{1}{4}$ sec. cor.
Ravine, 4.00 chs. wide, 80 ft. deep, course NW.

80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the
ground, for re-established cor. of secs. 13-18-19 and 24,
marked on brass cap, T 35 S on N. half,

R 24 E S 13 in NW.,

R 25 E S 18 in NE.,

S 19 in SE. and S 24 in SW. quadrant, from which

A pinon, 6 ins., diam., bears N. 87° 49' E., 23 lks. dist.,
marked T 35 S R 25 E S 18 BT.

A pinon 9 ins. diam., bears S. 20° 47' E., 57 lks. dist.,

CHAINS

marked T.35 S.R 25 E S 19[✓] BT.

A pinon, 8 ins. diam., bears S.46°15'W., 102 lks. dist.,

marked T.35 S R 24 E S 24[✓] BT.

A cedar, 14 ins. diam., bears N.49°29'W., 35 lks. dist.,

marked T 35 S R 24 E S.13[✓] BT.

After diligent search, no trace can be found of the old sec. cor.

Land, mountainous and rolling mesa.

Soil, rocky, broken ledges, and solid sandstone, 4th. rate.

Timber, cedar and pinon.

Mountainous land or heavily timbered land on 80.00 chs.

July 17, 1911

July 18: At 8h.06m., a.m., l.m.t., I set off 37°46'N on lat. arc, 21°11'N. on decl. arc and determine a meridian with the solar at the cor. of secs. 13-18-19 and 24. heretofore described.

Thence I run

S.0°13'W., resurveying bet. secs. 19 and 24.

Gradual ascent over rolling mesa, through heavy timber.

3.00 Leave heavy timber, bears NE. and SW. enter dense undergrowth, and scattering timber.

13.78 Begin abrupt ascent.

16.60 Top of abrupt ascent, sandstone ledges, 100 ft. above sec. cor. bears NE. and SW.

Gradual descent over rolling mesa, through dense undergrowth, and burned timber,

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins in the ground, for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 24 on W. half, S 19 on E. half, from which

A cedar, 6 ins. diam., bears N.79°10'E. 25 lks.

dist., marked $\frac{1}{4}$ S 19 BT.

A cedar, 7 ins. diam., bears S.36°37'W. 88 lks.

dist., marked $\frac{1}{4}$ S 24 BT.

After diligent search no trace can be found of the old $\frac{1}{4}$ sec. cor.

CHAINS

- 47.80 Enter heavy timber,bears E.and W.
- 80.00 Set an iron post,3 ft. long,3 ins.in dia.,24 ins in the ground, for the re-established cor.of secs.19-24-25 and 30,marked on brass cap,T.35 S.on N. half,
- R 24 E S 24 in NW.,
- R 25 E S 19 in NE.,
- S 30 in SE. and S 25 in SW.quadrant, from which
- A pinon, 6 ins.diam.,bears N.39°20' E.19 lks. dist.,marked T 35 S R 25 E S 19 BT.
- A pinon, 6 ins.diam.,bears S.79°24'E.59 lks. dist.,marked T 35 S R 25 E S 30 BT.
- A pinon, 8 ins.diam.,bears S.39°59'W.40 lks. dist.,marked T 35 S R 24 E S 25 BT.
- A pinon,7 ins. diam.,bears N.19°10'W.55 lks. dist.,marked T.35 S R 24 E S 24 BT.
- After diligent search no trace can be found of the old sec.cor.
- Land,rolling mesa and mountainous,
- Soil, first 13.78 chs. and last 63.40 chs is a sandy loam from 15 to 20 ins deep with a sandstone subsoil.balance is broken sandstone ledges,4th.rate.
- Timber, first 3.00chs and the last 32.20 chs.heavy cedar and pinon.balance scattering timber and burned timber.
- Undergrowth, dense sage brush.
- Land covered with dense undergrowth,heavily timbered and scattering timber or mountainous land on 80.00 chs.
-
- S.0°13'W., resurveying bet.secs.25 and 30.
- Gradual descent over rolling mesa,through heavy timber.
- 36.80 Abrupt descent over sandstone ledges,bears NW.and SE.
- 40.00 Hollow,75 ft,deep,course SE.,point for $\frac{1}{2}$ sec.cor.falls. in bottom subject to floods,impracticable to set.
- 40.45 Set an iron post,3 ft. long,1 in.in dia.26 ins. in the ground,

CHAINS

for witness $\frac{1}{4}$ cor. for re-established $\frac{1}{4}$ sec. cor.,
marked on brass cap, T 35 S on N. half, R 24 E S 25 WC $\frac{1}{4}$ on
W. half, and R 25 E S 30 on E. half, from which

A cedar, 12 ins. diam., bears N. $51^{\circ}32'$ E. 15 lks.
dist., marked WC $\frac{1}{4}$ S 30 BT.

A pinon, 10 ins. diam., bears S. $88^{\circ}30'$ E. 30 lks.
dist., marked WC $\frac{1}{4}$ S 25 BT.

After diligent search, no trace can be found of the old
 $\frac{1}{4}$ sec. cor.

Abrupt ascent.

47.90 Top of ledges, 75 ft above $\frac{1}{4}$ sec. cor., bears NW. and SE.
Gradual ascent.

49.50 Spur, projects E.

Gradual descent.

50.90 Abrupt descent over sandstone ledges, bears NE and SW.

56.10 Foot of abrupt descent, bears NE. and SW. thence gradual
descent over rolling mesa.

80.00 Set an iron post, 3 ft. long, 3 ins. dia. 24 ins. in the
ground, for re-established cor. of secs. 25-30-31 and 36,
marked on brass cap, T 35 S on N. half,

R 24 E S 25 in NW.,

R 25 E S 30 in NE.,

S 31 in SE. and S 36 in SW. quadrant, from which

A cedar, 6 ins. diam., bears N. $7^{\circ}24'$ E. 54 lks.
dist., marked T 35 S R 25 E S 30 BT.

A pinon, 5 ins. diam., bears S. $8^{\circ}20'$ E. 43 lks.
dist., marked T 35 S R 25 E S 31 BT.

A cedar, 11 ins. diam., bears S. $73^{\circ}23'$ W. 20 lks.
dist., marked T 35 S R 24 E S 36 BT.

A cedar, 21 ins. diam., bears N. $21^{\circ}32'$ W. 10 lks.
dist., marked T 35 S R 24 E S 25 BT.

After diligent search no trace can be found of the old
sec. cor.

Land, rolling mesa and mountainous.

Soil, sandy loam, from 12 to 15 ins deep with a solid
sandstone subsoil on the mesa, 1st. rate, balance;
broken ledges and rocky, 4th. rate.

CHAINS

Timber, heavy cedar and pinon.

Mountainous land and heavily timbered land on 80.00 chs.

July 18: At this cor. I set off $21^{\circ}09'N$. on decl. arc, and at 0h.06m., p.m., l.m.t., observe the sun on the meridian the resulting lat. is $37^{\circ}44'N$.

S. $0^{\circ}13'W$.; resurveying bet. secs. 31 and 36.

Gradual descent over rolling mesa, through heavy timber.

- 9.50 Abrupt descent, bears NW. and SE.
- 10.88 Hollow, 90 ft, deep, course SE.
Abrupt ascent.
- 12.75 Top of abrupt ascent, thence gradual descent over rolling mesa, bears NW. and SE.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia. $\frac{1}{4}$ ins. in the ground, for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 36 on W. half, S 31 on E. half, from which
A cedar, 8 ins. diam., bears S. $67^{\circ}51'E$. 35 lks. dist., marked $\frac{1}{4}$ S 31 BT.
A cedar, 10 ins. diam., bears S. $58^{\circ}20'W$. 16 lks. dist., marked $\frac{1}{4}$ S 36 BT.
After diligent search, no trace can be found of the old $\frac{1}{4}$ sec. cor.
- 74.10 Top of sandstone ledges, bears NE. and SW.
Abrupt descent.
- 77.10 Foot of abrupt descent, bears NE. and SW.
Gradual rolling descent.
- 80.00 The re-established stan. cor. of Tp. 35 S., Rs. 24 and 25. E. heretofore described.
Land, rolling and mountainous.
Soil, sandy loam, from 12 to 25 ins. deep, 1st. rate on first 74.10 chs., balance, sandstone ledges, 4th. rate.
Timber, heavy cedar and pinon.
Mountainous land or land heavily timbered on 80.00 chs.

July 18, 1911

For General Description see Subdivisions of T. 35 S., E. 24 E.

Melvin D. Geist
U.S. Transitman

BOUNDARIES OF T.35 S.,R.24 E.

Latitudes, departures and closing errors.

Line Designated	'True Bearing	Distance	Latitudes		Departures	
			N.	S.	E.	W.
		Chs.	Chs.	Chs.	Chs.	Chs.
North Bdy.	East	160.00			160.00	
East Bdy.	S.0°13'W.	479.94		479.94		1.81
7th.Stan.Par.S.	West	240.00				240.00
Subdivisions	N.0°02'W.	80.00	80.00			0.05
	S.89°57'W.	80.03		0.07		80.03
	West	79.98				79.98
	N.89°55'W.	80.02	0.12			80.02
Colo.G.Mer.	N.0°12'E.	79.99	79.99		0.28	
	N.0°20'E.	79.95	79.95		0.46	
	N.0°03'E.	80.17	80.17		0.07	
Subdivisions	S.89°57'E.	79.62		0.07	79.62	
	East	80.00			80.00	
	N.89°40'E.	81.14	0.47		81.14	
	East	80.83			80.83	
	N.0°01'W.	79.24	79.24			0.02
	N.0°03'E.	80.08	80.08		0.07	0.07
Convergency					0.37	
Totals			480.02	480.08 480.02	482.84 481.91	481.91
Error in lat.				0.06	.93	

For General Description see Subdivisions of T.35 S.,R. 24 E.

Merwin H. Keist
Eben R. Andrews
 U.S. Transitmen

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FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 _____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of transitman see book "Z¹" T. 32 S. R. 26 E.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191 _____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, March 19, 1914

The foregoing field notes of the survey of _____ re _____ the East Boundary of Township No. 35 South, Range No. 24 East of the Salt Lake Base and Meridian, Utah.

executed by _____ Melvin D. Heist _____ under his special instructions dated _____ May 22 _____ 1914, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

James Hill
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.

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BOOK A-394
" G "

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FILED
FEB 10 1912

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[Signature]

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISIONS

of

TOWNSHIP NO. 35 SOUTH, RANGE NO. 24 EAST.

Of the Salt Lake Base and Meridian,

the State of Utah

EXECUTED BY

Melvin D. Heist and Eben B. Andrews

in the capacity of U.S. ^{Transitmen} ~~Surveyors~~, under instructions dated May 22, 1911,
issued by the United States Surveyor General to govern surveys included in
Group No. 12, which were approved by the Commissioner of the General Land
Office, June 17, 1911, pursuant to authority contained in the Act of
Congress dated _____, 1911.

Survey commenced July 13, 1911

Survey completed July 27, 1911

Revs Subv 2-39-36 ✓
Revs " 1-01-02 ✓
Subv. 33-40-63 ✓ *Closing 3.05 ✓*

INDEX DIAGRAM.

Township 35 SOUTH, Range 24 EAST,

6	5	4	3	2	24	1
				22		21
7	8	9	10	31	11	20
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		40		19		18
18	8	17	16	41	15	33
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4	3	42	37	28		13
	2					
30	29	28	36	27	27	26
						12
				34	26	10
31	32	33	34	25	35	9
						36

Survey commenced July 13, 1911, and executed with the instrument described in book "D", of this survey.

I examine the adjustments of the transit and correct the level and collimation errors: then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of secs. 29-30-31 and 32, which is a sandstone 5x10x4 ins. above ground, marked and witnessed as described by the surveyor general, in approximate latitude $37^{\circ}44'N.$, longitude $109^{\circ}22'W.$, I set off $37^{\circ}44'N$ on lat. arc, $21^{\circ}55'N$ on decl. arc, and at 4h.05m., p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

July 13, 1911

July 14: At 0h.08m., a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions and mark a point in the line thus determined, on a peg, driven in the ground, 5 chs. N. of my station.

At 7 a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}28'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.4 ins. east of the mark determined by the solar.

At 8h05m. a.m., l.m.t., I set off $37^{\circ}44'N.$ on lat. arc, $21^{\circ}49'N.$ on decl. arc, and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation. The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about $0'21''$ west and $0'16''$ east of the meridian established by the Polaris observations; there, I conclude that the adjustments of the instrument are satisfactory.

CHAINS

The magnetic bearing of the true meridian, at 8h.30m., a.m., is $N.15^{\circ}40'W.$ the angle thus determined gives the mag. decl. $15^{\circ}40'E.$

Thence I run $N.0^{\circ}03'W.$, retracing bet. secs. 29 and 30, and at 40.00 chs., intersect the $\frac{1}{4}$ sec. cor. bet. secs. 29 and 30 which is a sandstone $10 \times 6 \times 4$ ins. above ground, marked and witnessed as described by the surveyor general.

July 14: At this cor. I set off $21^{\circ}47'N.$ on decl. arc, and at 0h.06m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N.$

Thence I run

$N.0^{\circ}03'W.$, bet. secs. 29 and 30.

Gradual descent over rolling mesa, through dense undergrowth.

- 7.60 Enter heavy timber, bears E. and W.
- 21.15 Begin abrupt descent over sandstone ledges, bearing E. and W.
- 40.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 19-20-29 and 30, marked on brass cap, T 35 S S 19 in NW.,
R 24 E S 20 in NE.,
S 29 in SE. and S 30 in SW. quadrant, from which
A cedar, 6 ins. diam., bears $N.88^{\circ}30'E.$, 16 lks. dist. marked T 35 S R 24 E S 20 BT.
- No other trees within limits and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- Pits impracticable.
- Land, rolling and mountainous.
- Soil, sandy loam, 2nd. rate, from 10 to 18 ins. deep, on first 21.15 chs.; balance sandstone ledges, 4t h. rate.
- Subsoil, solid sandstone.
- Timber, cedar and pinon.
- Undergrowth, oak brush.
- Land covered with dense undergrowth, heavily timbered land or mountainous land on 40.00 chs.

July 14, 1911

CHAINS

July 15: At 8h.06m., a.m., l.m.t., I set off $37^{\circ}45'N$. on lat. arc, $21^{\circ}40'N$. on decl. arc, and determine a meridian with the solar at the cor. of secs. 19-20-29 and 30.

Thence I run

East, on a random line, bet. secs. 20 and 29.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.06 Intersect N. and S. line, 9 lks. S. of the point for cor. of secs. 20-21-28 and 29, which is witnessed $5.25^{\text{chs.}}$ south of true point for cor.

At true point for cor., I set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 20-21-28 and 29, marked on brass cap,

T 35 S S 20 in NW.,

R 24 E S 21 in NE.,

S 28 in SE. and S 29 in SW. quadrant, from which

A cedar, 14 ins. diam., bears $N.40^{\circ}52'E.$, 10 lks.

dist., marked T 35 S R 24 E S 21 BT.

A pinon, 6 ins. diam., bears $S.73^{\circ}35'E.$, 15 lks. dist.,

marked T 35 S R 24 E S 28 BT.

A pinon, 8 ins. diam., bears $S.52^{\circ}10'W.$, 31 lks. dist.,

marked T 35 S R 24 E S 29 BT.

A cedar, 12 ins. diam., bears $N.29^{\circ}54'W.$, 30 lks. dist.,

marked T 35 S R 24 E S 20 BT.

I destroy all traces of the witness cor. to the cor. of secs. 20-21-28 and 29.

July 15: At this cor. I set off $21^{\circ}38'N$. on decl. arc, and at 0h.06m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N$.

Thence I run

$S.39^{\circ}56'W.$, on a true line,

Bet. secs. 20 and 29.

Ascend along south side of Long Canyon, over broken sandstone ledges, through heavy timber.

40.03 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 20 on N. half, S 29 on S. half, from which

SUBDIVISIONS OF T. 35 S., R. 24 E.

CHAINS

A pinon, 7 ins. diam., bears S. 69° E., 37 lks. dist.,
marked $\frac{1}{4}$ S 29 BT.

A pinon, 8 ins. dia., bears N. 39° 27' E., 45 lks. dist.,
marked $\frac{1}{4}$ S 20 BT.

52.00 Rocky spur, projects N.
Descend along broken N. slope.

65.40 Hollow, 100 ft. deep, course N.
Ascend along broken N. slope.

80.06 The cor. of secs. 19-20-29 and 30.
Land, mountainous.
Soil, broken sandstone ledges, 4th. rate.
Timber, cedar and pinon.
Mountainous land and heavily timbered land on 80.06 chs.

N. 89° 55' W., on a random line, bet. secs. 19 and 30.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.65 Intersect Colorado Guide Meridian, 3 lks. S. of the cor. of
secs. 19-24-25 and 30, heretofore described.

July 15, 1911

July 25: At 8h. 06m., a.m., l.m.t., I set off 37° 45' N. on lat.
arc, 19° 50' N. on decl. arc, and determine a meridian with the
solar, at the cor. of secs. 19-24-25 and 30, on the Colorado
Guide Meridian.

Thence I run

S. 89° 54' E., on a true line, bet. secs. 19 and 30

Descend over rocky and mountainous land, through heavy
timber.

8.40 Enter bottom of Long Canyon, 400 ft. deep, course S. 83° E.
Leave timber, bears NW. and SE.

9.50 Wash, 50 lks. wide, 5 ft. deep, course SE.

14.00 Leave canyon; begin abrupt ascent over broken ledges,
bearing NW. and SE., through heavy timber.

16.00 Rocky spur, projects S.
Descend along broken and rocky south slope.

39.65 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked on brass cap. $\frac{1}{4}$ S 19 on N.

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

half, S 30 on S. half, from which

A pinon, 5 ins dia. bears S. 1°30'W., 18 lks. dist.,
marked $\frac{1}{4}$ S 30 BT.

A cedar, 7 ins. diam., bears N. 31°20'W., 31 lks. dist.,
marked $\frac{1}{4}$ S 19 BT.

68.25 Wash, 25 lks. wide, 5 ft. deep, in bottom of Long Canyon,
400 ft. deep, course NE.

Abrupt ascent along broken north slope.

79.65 The cor. of secs. 19-20-29 and 30.

Land; mountainous.

Soil, broken sandstone ledges, 4th. rate.

Timber, cedar and pinon.

Mountainous land on 79.65 chs.

July 25: At this cor. I set off 19°48'N. on decl. arc, and
at 0h. 06m., p.m., 1.m.t., observe the sun on the meridian,
the resulting lat. is 37°45'N.

N. 0°03'W., bet. secs. 19 and 20.

Descend over rocky and mountainous land, through
scattering timber.

4.50 Wash, 25 lks. wide, 5 ft. deep, in bottom of Long Canyon, 600
ft. deep, course E.

Abrupt ascent over broken sandstone ledges, through
heavy timber.

13.50 Top of abrupt ascent, 250 ft. above bottom of canyon, bears
E. and W.

Over rolling mesa.

36.00 Begin abrupt descent over sandstone ledges, bearing NW.
and SE.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 19 on W.
half, S 20 on E. half, from which

A pinon, 8 ins. diam., bears S. 27°43'E., 15 lks. dist.,
marked $\frac{1}{4}$ S 20 BT.

A pinon, 12 ins. diam., bears N. 24°51'W., 12 lks. dist.,
marked $\frac{1}{4}$ S 19 BT.

CHAINS

45.20 Wash, 25 lks. wide, 5 ft. deep, in bottom of Dodge Canyon,
400 ft. deep, course SE.
Abrupt ascent over broken ledges.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the
ground, for cor. of secs. 17-18 -19 and 20, marked on brass
cap, T 35 S S 18 in NW.,
R 24 E S 17 in NE.,
S 20 in SE. and S 19 in SW. quadrant, from which
A cedar, 14 ins. diam., bears S. 30°25' E., 47 lks.
dist., marked T 35 S., R. 24 E S 20 BT.
A pinon, 10 ins. diam., bears S. 50°09' W., 52 lks. dist.,
marked T 35 S R 24 E S 19 BT.

No other trees within limits and raise a mound of stone,
2 ft. base, 1½ ft. high, W. of cor.
Pits impracticable.
Land, mountainous, and rolling.
Soil, broken sandstone ledges and solid sandstone, 4th. rate.
Timber, cedar and pinon.
Mountainous land or land covered with dense undergrowth
on 80.00 chs.

July 25, 1911

July 26: At 8h. 06m., a.m., l.m.t., I set off 37°46' N. on lat.
arc, 19°37' N. on decl. arc, and determine a meridian with the
solar at the cor. of secs. 17-18-19 and 20.

Thence I run

N. 89°56' E., on a random line, bet. secs. 17 and 20.

40.00 Set temp. ½ sec. cor.

80.04 Intersect N. and S. line, 3 lks. S. of the cor. of secs. 16-17-
20 and 21, which is a sandstone, 8x14x3 ins. above ground,
marked and witnessed as described by the surveyor
general.

July 26: At this cor. I set off 19°35' N. on decl. arc, and
at 0h. 06m., p.m., l.m.t., observe the sun on the meridian,
the resulting lat. is 37°46' N.

Thence I run

S. 89°55' W., on a true line,

CHAINS

Bet.secs.17 and 20.

Descend over rocky land, through heavy timber.

1.25 Hollow, 50 ft. deep, course SE.

Ascend over rolling land.

40.02 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 17 on N. half, S 20 on S. half, from whichA cedar, 12 ins. diam., bears N. $49^{\circ}55'W.$, 38 lks. dist. marked $\frac{1}{4}$ S 17 BT.A pinon, 8 ins. diam., bears S. $49^{\circ}26'E.$, 46 lks. dist. marked $\frac{1}{4}$ S 20 BT.

80.04 The cor. of secs. 17-18-19 and 20.

Land, rolling.

Soil, rocky loam, 3rd. rate; subsoil, solid sandstone.

Timber, heavy cedar and pinon.

Heavily timbered land on 80.04 chs.

July 26, 1911

 July 27: At 8h. 06m., a.m., l.m.t., I set off $37^{\circ}46'N.$ on lat. arc, $19^{\circ}24'N.$ on decl. arc, and determine a meridian with the solar at the cor. of secs. 17-18-19 and 20.

Thence I run

N. $89^{\circ}54'W.$, on a random line, bet. secs. 18 and 19.40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.20 Intersect Colorado Guide Meridian, 9 lks. N. of the cor. of secs. 13-18-19 and 24, heretofore described.

Thence I run

S. $89^{\circ}58'E.$, on a true line,

Bet. secs. 18 and 19.

Gradual descent over mesa, through heavy timber.

9.10 Begin abrupt descent over sandstone ledges, bearing NW. and SE.

14.00 Foot of ledges, 100 ft. high, bearing NW. and SE.

Leave timber, bearing NW. and SE.

Descend through dense undergrowth.

39.20 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

- ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{2}$ S 18 on N. half, S 19 on S. half, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.
- 46.60 Wash, 25 lks. wide, 10 ft. deep, in bottom of Dodge Canyon, 250 ft. deep, course SE.
Ascend.
- 69.00 Spur, projects SE.
Descend. Enter heavy timber, bears NW. and SE.
- 79.20 The cor. of secs. 17-18-19 and 20.
Land, rolling and mountainous.
Soil, rocky and broken ledges, 3rd. and 4th. rate.
Timber, cedar and pinon.
Undergrowth, sage brush.
Heavily timbered land, mountainous land or land covered with dense undergrowth on 79.20 chs.
July 27: At this cor. I set off $19^{\circ}21'$ N. on decl. arc, and at 0h.06m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}46'$ N.
-
- N. $0^{\circ}03'$ W., on a random line, bet. secs. 17 and 18.
- 40.05 Fall 51 lks. W. of the $\frac{1}{4}$ sec. cor. bet. secs. 17 and 18, which is a sandstone, 10x10x6 ins. above ground, marked and witnessed as described by the surveyor general.
I abandon my random line and begin at the $\frac{1}{4}$ sec. cor. bet. secs. 17 and 18 and run
S. $0^{\circ}03'$ E., on a true line,
Bet. secs. 17 and 18.
Descend over rolling land, through heavy timber.
- 3.25 Begin abrupt descent over sandstone ledges, bearing NW. and SE.
- 7.00 Foot of ledges, 150 ft. high, bearing NW. and SE.
Descend over rolling land.
- 40.05 Intersect N. bdy. of sec. 20, at E. $89^{\circ}55'$ E., 51 lks. from the cor. of secs. 17-18-19 and 20.
Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the

CHAINS

ground, for closing cor. of secs. 17 and 18, marked on brass cap, T 35 S R 24 E on N. half, CC S 19 S 20 on S. half, S 18 in NW. and S 17 in NE. quadrant, from which

A pinon, 12 ins. diam., bears N. $76^{\circ}09'E.$, 45 lks. dist., marked T 35 S R 24 E S 17 BT..

A pinon, 9 ins. diam., bears N. $45^{\circ}W.$, 29 lks. dist., marked T 35 S R 24 E S 18 BT.

I destroy all marks on the cor. of secs. 17-18-19 and 20 that pertain to secs. 17 and 18.

Land, mountainous and rolling.

Soil, rocky and sandstone ledges, 3rd. and 4th. rate.
subsoil, sandstone.

Timber, heavy cedar and pinon.

Mountainous land or heavily timbered land on 40.05 chs.

July 27, 1911

July 18: At 8h. 06m., a.m., 1.m.t., I set off $37^{\circ}43'N.$ on lat. arc, $21^{\circ}11'N.$ on decl. arc, and determine a meridian with the solar at the re-established stan. cor. of secs. 35 and 36, heretofore described on the Seventh Standard Parallel South.

Thence I run

N. $0^{\circ}12'E.$, bet. secs. 35 and 36.

Over level land, in bottom of Montezuma Canyon, through dense undergrowth.

10.00 Leave canyon.

Begin abrupt ascent over sandstone ledges, bearing E. and W. Enter heavy timber, bears E. and W.

28.00 Top of abrupt ascent, 650 ft. above bottom of canyon, bears E. and W.

Gradual ascent over rolling mesa.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 35 on W. half, S 36 on E. half, from which

A cedar, 10 ins. diam., bears S. $58^{\circ}30'W.$, 16 lks. dist., marked $\frac{1}{4}$ S 35 BT.

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

A cedar, 8 ins. diam., bears S. 67° 51' E., 35 lks. dist., marked $\frac{1}{2}$ S 36 BT.

44.00 Begin abrupt descent, bears NE. and SW.

45.85 Ravine, 50 ft. deep, course SW.
Abrupt ascent.

47.00 Top of abrupt ascent, bears NE. and SW.
Gradual ascent over rolling mesa.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 25-26-35 and 36, marked on brass cap, T 35 S S 26 in NW.,
R 24 E S 25 in NE.,
S 36 in SE. and S 35 in SW. quadrant, from which

A cedar, 14 ins. diam., bears N. 62° 35' E., 44 lks. dist., marked T 35 S R 24 E S 25 BT.

A pinon, 8 ins. diam., bears S. 32° 22' E., 21 lks. dist., marked T 35 S R 24 E S 36 BT.

A cedar, 15 ins. diam., bears S. 79° 17' W., 51 lks. dist., marked T 35 S R 24 E S 35 BT.

A cedar, 10 ins. diam., bears N. 29° 41' W., 27 lks. dist., marked T 35 S R 24 E S 26 BT.

Land, level, mountainous and rolling.
Soil, sandy loam over 24 ins. deep, 1st. rate on first 10.00 chs.; balance, rocky and sandstone ledges, 3rd. and 4th. rate; subsoil, sandstone.
Timber, cedar and pinon.
Undergrowth, sage brush.
Land covered with dense undergrowth, mountainous land, or heavily timbered land on 80.00 chs.
July 18: At this cor. I set off 21° 09' N. on decl. arc, and observe the sun on the meridian, at 0h. 06m. p.m.; l.m.t., the resulting lat. is 37° 44' N.

East, on a random line, bet. secs. 25 and 36.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.10 Intersect the re-established cor. of secs. 25-30-31 and 36 heretofore described on the E. bdy. of the Tp.

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

Thence I run

West, on a true line, bet. secs. 25 and 36.

Gradual ascent over rolling and rocky land, through heavy timber.

23.25 Begin abrupt ascent over sandstone ledges, bearing NE. and SW.

28.00 Top of ledges, 150 ft. high, bearing NE. and SW.
Over level sandstone ledges.

37.44 Begin abrupt descent over sandstone ledges, bearing NW. and SE.

40.05 Set and iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 25 on N. half, S 36 on S. half, from which

A pinon, 11 in. s. diam., bears S. 10° E., 11 lks. dist., marked $\frac{1}{4}$ S 36 BT.

A pinon, 5 ins. diam., bears N. 12° W., 18 lks. dist., marked $\frac{1}{4}$ S 25 BT.

45.00 Foot of ledges, 150 ft. high, bearing NW. and SE.
Descend over rolling land.

80.10 The cor. of secs. 25-26-35 and 36.

Land, rolling and mountainous.

Soil, rocky and sandstone ledges, 3rd. and 4th. rate.

subsoil, solid sandstone.

Timber, cedar and pinon.

Heavily timbered land or mountainous land on 80.10 chs.

July 18, 1911

Eben B. Andrews

U.S. Transitman.

July 19, 1911: Survey commenced and executed with the instrument described in book "A", of this survey.

I examine the adjustments of the transit and correct the level and collimation errors; then, to test the solar apparatus by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed

CHAINS

as follows:

At the cor. of secs. 25-26-35 and 36, already described, in approximate latitude $37^{\circ}44'N.$, longitude $109^{\circ}17'W.$, I set off $37^{\circ}44'N.$ on lat. arc, $20^{\circ}56'N.$ on decl. arc, and at 4h. 06m., p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone, firmly set in the ground, 5 chs. N. of the cor.

At 11h. 45m., p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg, driven in the ground, 5 chs. N. of my station.

July 19, 1911

July 20: At 7 a.m., I lay off the azimuth of Polaris, $1^{\circ}28'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.3 ins. east of the mark determined with the solar.

At 8h. 06m., a.m., l.m.t., I set off $37^{\circ}44'N.$ on lat. arc, $20^{\circ}49'N.$ on decl. arc, and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about $0'16''$ west and east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h. 30m., a.m., is $N. 15^{\circ}40' W.$, the angle thus determined gives the mag. decl. $15^{\circ}40' E.$

From the sec. cor. already described, I run

$N. 0^{\circ}12' E.$, bet. secs. 25 and 26.

Gradual ascent over rolling and rocky land, through heavy timber.

34.00 Begin abrupt descent, bears NE. and SW.

34.72 Ravine, 75 ft. deep, course SW.

CHAINS

Abrupt ascent.

39.90 Top of abrupt ascent.thence gradual ascent.
40.00 Set an iron post,3 ft. long,1 in. dia.,26 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 26 on W. half,S 25 on E.half,from which

A cedar, 6 ins.diam.,bears N.66°05'E. 11 lks. dist.,marked $\frac{1}{4}$ S 25 BT.

A pinon,5 ins.diam.,bears N.72°57'W.13 lks. dist.,marked $\frac{1}{4}$ S 26 BT.

44.60 Foot of abrupt ascent,bears NW.and SE.

46.11 Top of sandstone ledges,125 ft above $\frac{1}{4}$ cor.,bears NW. and SE.

Gradual ascent over rolling mesa.

80.00 Set an iron post, 3 ft.long,2 ins.dia.,24 ins. in the ground, for cor. of secs. 23-24-25- and 26. marked on brass cap, T 35 S S 23 inNW.,
R 24 E S 24 in NE.,
S 25 in SE.and S 26 in SW. quadrant,from which

A cedar,20 ins.diam.,bears N.87°20'E.24 lks. dist.,marked T 35 S R 24 E S 24 BT.

A cedar,16 ins. diam.,bears S 32°E.18 lks.dist., marked T 35 S R 24 E S 25 BT.

A cedar,9 ins.diam.,bears S.65°W.38 lks.dist., marked T 35 S R 24 E S 26 BT.

A cedar, 14 ins.diam.,bears N.32°37'W.42 lks., dist.,marked T 35 S R 24 E S 23 BT.

Land,mountainous and rolling.

Soil,first 46.11 chs. broken ledges and rocky,covered with soil from 12 to 15 ins. deep,3 rate;balance, mesa,soil from 20 to 25 ins. deep,sandy loam,2nd.rate.

Timber, heavy cedar and pinon.

Mountainous land or heavily timbered land on the 80:00 chs.

East on a random line,bet, secs.24 and 25.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.94 Intersect the E.bdy. of the Tp. 12 lks. S. of the re-

CHAINS

established cor of secs. 19-24-25 and 30. heretofore described.

July 20: At this cor. I set off $20^{\circ}47'N.$ on decl. arc, and observe the sun on the meridian, at Oh. 06m., p.m., l.m.t., the resulting lat. is $37^{\circ}45'N.$

Thence I run

$S. 89^{\circ}55'W.$ on a true line, bet. secs. 24 and 25.

Gradual ascent over rolling mesa, through heavy timber.

39.97 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 24 on N. half, S 25 on S. half, from which

A pinon, 9 ins. diam., bears $N. 6^{\circ}E. 6$ lks. dist., marked, $\frac{1}{4}$ S 24 BT.

A pinon, 10 ins. diam., bears $S. 32^{\circ}34'E. 47$ lks. dist., marked $\frac{1}{4}$ S 25 BT.

79.94 The cor. of secs. 23-24-25 and 26. Land, rolling mesa.

Soil, sandy loam, from 24 to 36 ins. deep, 1st. rate, with solid sandstone subsoil, on 79.94 chs.

Timber, heavy pinon and cedar.

Heavily timbered land on 79.94 chs.

$N. 0^{\circ}12'E.$, bet. secs. 23 and 24.

Gradual ascent over rolling mesa, through heavy timber.

12.42 Abrupt descent over sandstone ledges, 200 ft. high, bears NE. and SW.

17.26 Foot of abrupt descent, bears NE. and SW., thence gradual descent over rolling ground.

40.02 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 23 on W. half, S 24 on E. half, from which

A cedar, 14 ins. diam., bears $N. 38^{\circ}30'E. 22$ lks. dist., marked $\frac{1}{4}$ S 24 BT.

A pinon, 13 ins. diam., bears $N. 78^{\circ}W. 11$ lks. dist. marked $\frac{1}{4}$ S 23 BT.

July 20, 1911

CHAINS

July 21: At 8h.06m., a.m., l.m.t., I set off $37^{\circ}46'N.$ on lat.arc, $20^{\circ}38'N.$ on decl.arc, and determine a meridian with the solar, at the $\frac{1}{4}$ sec.cor. bet.secs.23 and 24.
 Thence I run
 $N.0^{\circ}12'E.$, with continuous measurement, bet.secs.23 and 24.
 72.40 Leave heavy timber, bears NE.and SW., enter dense undergrowth.
 73.46 Abrupt descent over sandstone ledges, bears NE.and SW.
 80.00 Set an iron post, 3 ft. long, 2 ins,dia., 24 ins. in the ground, for the cor. of secs. 13-14-23 and 24. marked on brass cap, T 35 S S 14 in NW.,
 R 24 E S 13 in NE.,
 S 24 in SE. and S 23 in SW.quadrant, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor., Pits im-
 practicable.
 Land, rolling and mountainous.
 Soil, sandy loam, 12 to 20 ins.deep on mesas 2nd.rate,
 with solid sandstone, subsoil.balance; rocky and
 broken ledges, 4th.rate.
 Timber, heavy pinon and cedar.
 Undergrowth, sage brush.
 Heavily timbered land, mountainous land, and land covered with dense undergrowth on 80.00 chs.

N: $89^{\circ}55'E.$, on a random line, bet. secs 13 and 24.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 80.05 Intersect the E.bdy.of the Tp. 3 lks.S.of the re-established cor.of secs.13-18-19 and 24.heretofore described.
 Thence I run
 $S.89^{\circ}54'W.$, on a true line,
 Bet.secs. 13 and 24.
 Gradual descent, over rolling and mountainous land, through heavy timber.
 14.10 Begin abrupt descent.
 15.83 Ravine, 75 ft.deep, course NW.
 Abrupt ascent.
 18.15 Top of abrupt ^{ascent} thence gradual descent.

CHAINS
40.02½

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 13 on N. half, S 24 on S. half, from which

A pinon, 10 ins. diam., bears S. 48° 14' W. 43 lks. dist., marked ¼ S 24 BT.

A pinon, 8 ins. diam., bears N. 41° 15' W. 34 lks. dist., marked ¼ S 13 BT.

July 21: At this cor. I set off 20° 36' N on decl. arc, and at 0h. 06m., p.m., l.m.t., observe the sun on the meridian the resulting lat. is 37° 46' N.

Gradual descent through heavy timber.

44.90 Begin abrupt descent.

46.25 Hollow, 80 ft. deep, course NW.

Abrupt ascent.

48.15 Spur, 90 ft. high, projects NW.

Abrupt descent.

51.50 Hollow, 100 ft. deep, course NW.

Abrupt ascent.

53.10 Top of abrupt ascent, thence gradual descent,

59.10 Top of sandstone ledges, bears NE. and SW.

Thence along NW. slope of canyon. Descend.

62.00 Leave heavy timber, bears NE. and SW., enter dense undergrowth.

80.05 The cor. of secs. 13-14-23 and 24.

Land mountainous.

Soil, broken sandstone ledges, 4th. rate.

Timber, heavy pinon and cedar.

Undergrowth, dense sage brush,

Mountainous land heavily timbered land or land covered with dense undergrowth on 80.05 chs.

N. 0° 12' E., bet. secs. 13 and 14.

Abrupt descent over broken land, through dense undergrowth.

4.20 Foot of abrupt descent, bears NE. and SW., thence over level land in bottom of canyon.

CHAINS

- 9.06 Wash in bottom of Pearson Canyon, 20 lks.wide, 5 ft. deep
650 ft below ledges.
- 12.90 Begin abrupt ascent over SE.slope of canyon, enter heavy
timber, bears NE. and SW.
- 34.79 Top of sandstone ledges, bears NE. and SW., gradual ascent
over rolling mesa.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 14 on W.
half, S 13 on E. half, from which
- A cedar, 6 ins. diam., bears N. 36° 54' E. 45 lks.
dist., marked $\frac{1}{4}$ S 13 BT.
- A cedar, 7 ins. diam., bears S. 44° 12' W. 41 lks.
dist., marked $\frac{1}{4}$ S 14 BT.

July 21, 1911,

July 22: At 8h. 06m. a.m., l.m.t., I set off 37° 46' N on lat.
arc, 20° 27' N on decl. arc, and determine a meridian with
the solar at the $\frac{1}{4}$ sec. cor. bet. secs 13 and 14.
Thence I run N. 0° 12' E.

with continuous measurement

Bet secs. 13 and 14.

Gradual ascent over rolling mesa, through heavy timber.

- 69.10 Begin abrupt descent.
- 71.50 Hollow, 80 ft. deep, course SW.
Abrupt ascent.
- 74.00 Top of abrupt ascent, thence gradual ascent.
- 80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the
ground. for the cor. of secs. 11-12-13 and 14. marked on
brass cap, T 35 S S 11 in NW.,
R 24 E S 12 in NE.,
S 13 in SE. and S 14 in SW. quadrant, from which
- A pinon, 6 ins. diam., bears N. 56° E. 62 lks.
dist., marked T 35 S R 24 E S 12 BT.
- A pinon, 7 ins. diam., bears S. 50° 45' E. 26 lks.
dist., marked T 35 S R 24 E S 13 BT
- A pinon, 6 ins. diam., bears S. 56° 48' W. 18 lks.
dist., marked T 35 S R 24 E S 14 BT.
- A pinon, 7 ins. diam., bears N. 50° 54' W. 20 lks.

CHAINS

dist., marked T. 35 S. R. 24 E S 11 BT.

Land, rolling, level and mountainous.

Soil, black loam, over 24 ins. deep, in bottom of Pearson Canyon, 1st. rate; balance, broken sandstone ledges or rocky, 3rd. and 4th. rate. subsoil, sandstone.

Timber, cedar and pinon.

Undergrowth, sage brush.

Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.00 chs.

N. 89°54' E., on a random line, bet. secs. 12 and 13.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.94 Intersect E. bdy. of Tp., 9 lks. N. of the point for re-established cor. of secs. 7-12-13, and 18, witnessed 250. lks. S. of true point, heretofore described. Thence I run

S. 89°58' W., on a true line,

Bet. secs. 12 and 13.

Ascend over rocky and mountainous land, through heavy timber.

19.74 Top of abrupt ascent and ledges, bearing NE. and SW.

Gradual ascent over rolling and broken mesa.

39.97 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap. $\frac{1}{4}$ S 12 on N. half, S 13 on S. half, from which

A pinon, 6 ins. diam., bears S. 25° E., 24 lks. dist., marked $\frac{1}{4}$ S 13 BT.

A cedar, 12 ins. diam., bears N. 12°30' E., 63 lks. dist., marked $\frac{1}{4}$ S 12 BT.

46.00 Begin abrupt descent, bears NE. and SW.

47.00 Ravine, 130 ft. deep, course SW.

Abrupt ascent.

50.10 Top of abrupt ascent, bears NE. and SW.

Over broken mesa.

66.10 Begin abrupt descent, bears NW. and SE.

67.14 Ravine, 40 ft. deep, course SE.

Abrupt ascent.

69.00 Top of abrupt ascent, bears NW. and SE.

CHAINS

Over broken mesa.

79.94

The cor. of secs. 11-12-13 and 14.

Land, mountainous and rolling.

Soil, broken and solid sandstone ledges, 4th. rate.

Timber, heavy cedar and pinon.

Mountainous and or heavily timbered land on 79.94 chs.

July 22: At this cor. I set off $20^{\circ}24'N.$ on decl. arc, and

On 06m., p.m., 1 m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}47'N.$

$S. 89^{\circ}58'W.$ on a random line, bet. secs. 11 and 14.

40.00

Set temp. $\frac{1}{4}$ sec. cor.

80.12

Intersect E. bdy. of sec. 15, 82 lks. $S. 0^{\circ}12'W.$, from the C.C. of secs. 14 and 15.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 11 and 14, marked on brass cap, T 35 S R 24 E on N. half, CC S 15 on W. half, S 11 in NE. and S 14 in SE. quadrant, from which

A cedar, 12 ins. diam., bears $N. 65^{\circ}54'E.$, 28 lks. dist., marked T 35 S R 24 E S 11 BT..

A cedar, 8 ins. diam., bears $S. 46^{\circ}E.$, 23 lks. dist., marked T 35 S R 24 E S 14 BT.

I destroy all marks on the closing cor. of secs. 14 and 15 and the cor. of secs. 10, and 11, pertaining to secs. 11 and 14 Thence I run

$N. 89^{\circ}58'E.$ on a true line, bet. secs. 11 and 14

Gradual descent over rocky and broken land, through heavy timber.

14.75

Begin abrupt descent over sandstone ledges, bearing NW. and SE. Leave timber, bears N. and S.

30.25

Foot of ledges, 600 ft. high, bearing NW. and SE.

Enter bottom of Montezuma Canyon, 600 ft. deep, course S.

Over level land, through dense undergrowth.

39.00

Montezuma Creek, 12 lks. wide, 12 ins. deep, course S.

40.06

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 11 on N.

half, S 14 on S. half, and raise a mound of stone, 2 ft. base,

CHAINS

1½ ft. high, N. of cor.

Pits impracticable.

42.50

Leave bottom of canyon, bears N.W. and SE.

Begin abrupt ascent over sandstone ledges.

44.00

Enter heavy timber, bears NW. and SE.

59.50

Top of ledges, 600 ft. above ¼ sec. cor., bearing N. and S.

Over broken and rocky land, gradual descent.

80.12

The cor. of secs. 11-12-13 and 14.

Land, rolling, level and mountainous.

Soil, sandy loam, over 24 ins. deep, in bottom of canyon,

1st rate on 12.25 chs.; balance, broken and solid

sandstone ledges, 4th. rate. subsoil, solid sandstone.

Timber, cedar and pinon.

Undergrowth, sage brush.

Heavily timbered land, mountainous land, or land covered with dense undergrowth on 80.12 chs.

N.0°12'E., bet. secs. 11 and 12.

Gradual ascent over broken and rocky land, through heavy timber.

40.00

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 11 on W. half, S 12 on E. half, from which

A pinon, 6 ins. diam., bears N. 45° 10' W., 43 lks. dist., marked ¼ S 11 BT.

A pinon, 7 ins. diam., bears S. 62° 20' E., 30 lks. dist., marked ¼ S 12 BT.

July 22, 1911

80.00

September 1: At 8 a.m., l.m.t., I set off 37° 47' N. on elat. arc, 8° 34' N. on decl. arc, and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 11 and 12.

Thence I continue N.0°12'E., with continuous measurement bet. secs. 11 and 12.

78.10

Begin abrupt descent, bears NE. and SW.

80.00

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 1-2-11 and 12, marked on brass cap

CHAINS

T 35 S S 2 in NW.,

R 24 E S 1 in NE.,

S 12 in SE. and S 11 in SW. quadrant, from which

A pinon, 8 ins. diam., bears N. 52° 32' E., 149 lks. dist.,
marked T 35 S R 24 E S 1 BT.

A pinon, 6 ins. diam., bears S. 30° 08' E., 46 lks. dist.,
marked T 35 S R 24 E S 12 BT.

A cedar, 12 ins. diam., bears S. 18° 48' W., 21 lks. dist.,
marked T 35 S R 24 E S 11 BT.

A cedar, 14 ins. diam., bears N. 12° 18' W., 55 lks. dist.,
marked T 35 S R 24 E S 2 BT.

Land, rolling and broken.

Soil, broken and solid sandstone, 4th. rate.

subsoil, solid sandstone.

Timber, cedar and pinon.

Heavily timbered land on 80.00 chs.

N. 89° 58' E., on a random line, bet. secs. 1 and 12.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.90 Intersect E. bdy. of Tp., 12 lks. N. of the re-established
cor. of secs. 1-6-7 and 12, heretofore described.

September 1: At this cor. I set off 8° 30' N. on decl. arc, and
at 12 h 00' p.m. l.m.t., at 0 h 00' p.m. l.m.t.
observe the sun on the meridian, the resulting lat.

is 37° 48' N.

Thence I run

N. 89° 57' W., on a true line,

Bet. secs. 1 and 12.

Gradual ascent over rocky land, through heavy timber.

20.10 Begin abrupt ascent over sandstone ledges, bearing NE.
and SW.

25.50 Top of abrupt ascent, 150 ft. high, bearing NE. and SW.
Over broken land.

39.95 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 1 on N.
half, S 12 on S. half, from which

CHAINS

A cedar, 10 ins. diam., bears N. 19° 48' E., 30 lks. dist., marked $\frac{1}{4}$ S 1 BT.

A cedar, 6 ins. diam., bears S. 23° 45' W., 83 lks. dist., marked $\frac{1}{4}$ S 12 BT.

- 51.50 Begin abrupt descent over sandstone ledges, bearing N. and S.
- 54.20 Foot of ledges, 200 ft. high, bearing N. and S.
Descend over rocky land.
- 78.50 Begin abrupt descent, bears NE. and SW.
- 79.90 The cor. of secs. 1-2-11 and 12.
Land, rolling and mountainous.
Soil, rocky and sandstone ledges, 4th. rate:
subsoil, solid sandstone.
Timber, cedar and pinon.
Heavily timbered land or mountainous land on 79.90 chs.
September 1, 1911

September 2: At 8 a.m., l.m.t., I set off. 37° 48' N. on lat. arc, 8° 12' N. on decl. arc, and determine a meridian with the solar at the cor. of secs. 1-2-11 and 12.

Thence I run

S. 89° 58' W., on a random line, bet. secs. 2 and 11.

- 40.00 Set temp. $\frac{1}{4}$ sec. cor.

- 79.56 Intersect N. and S. line, 3 lks. S. of the cor. of secs. 2-3-10 and 11, which is a sandstone, 8x12x8 ins. above ground, marked and witnessed as described by the surveyor general.

Thence I run

N. 89° 59' E., on a true line,

Bet. secs. 2 and 11.

Gradual descent over rocky land, through heavy timber.

- 14.00 Begin abrupt descent over sandstone ledges, bearing N. and S.
- 23.00 Foot of ledges, 600 ft. high, bearing N. and S.
Leave timber, bears N. and S.
Over level bottom of Montezuma Canyon, through dense undergrowth.

CHAINS

- 39.00 Montezuma Creek, 10 lks. wide, 12 ins. deep, course SE.
- 39.78 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S $\frac{1}{2}$ on N. half, S 11 on S. half, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.
- 43.00 Leave Montezuma Canyon.
Begin abrupt ascent over sandstone ledges, bearing NW. and SE.
Enter heavy timber, bearing NW. and SE.
- 55.00 Top of ledges, 600 ft. above bottom of canyon, bearing NW. and SE.
Gradual ascent over broken land.
- 59.50 Begin abrupt descent, bearing NE. and SW.
- 61.20 Ravine, 75 ft. deep, course SW.
Abrupt ascent.
- 63.10 Top of abrupt ascent, bears NE. and SW.
Gradual ascent over broken and rocky land.
- 77.10 Begin abrupt descent, bears NE. and SW.
- 79.20 Hollow, 60 ft. deep, course SW.
Abrupt ascent.
- 79.56 The cor. of secs. 1-2-11 and 12.
Land, rolling mountainous and level.
Soil, sandy loam over 24 ins. deep, 1st. rate on 20.00 chs. in bottom of Montezuma canyon; balance, broken and solid sandstone ledges, 4th. rate.
subsoil, solid sandstone.
Timber, cedar and pinon.
Undergrowth, sage brush.
Heavily timbered land, mountainous land or land covered with dense undergrowth on 79.56 chs.
September 2: At this cor. I set off $8^{\circ}08'N.$ on decl. arc, and at 12 M., 1. m. t., observe the sun on the meridian, the resulting lat. is $37^{\circ}48'N.$

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

N.0°12'E., on a random line, bet. secs. 1 and 2.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.10 Intersect N.bdy. of Tp., 5 lks. W. of the cor. of secs. 1-2-35 and 36, which is a sandstone, 15x10x6 ins. above ground, marked and witnessed as described by the surveyor general.

Thence I run

S.0°14'W., on a true line;

Bet. secs. 1 and 2.

Descend over rocky and broken land, through heavy timber.

4.60 Wash, 75 lks. wide, 10 ft. deep, course SW.

40.10 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 2 on W. half, S 1 on E. half, from which

A pinon, 10 ins. diam., bears N.75°50'E., 21 lks. dist., marked $\frac{1}{4}$ S 1 BT.

A cedar, 8 ins. diam., bears S.69°50'W., 34 lks. dist., marked $\frac{1}{4}$ S 2 BT.

75.10 Begin abrupt descent, bears NE. and SW.

79.40 Hollow, 60 ft. deep, course SW.

Abrupt ascent.

80.10 The cor. of secs. 1-2-11 and 12.

Land, broken and mountainous.

Soil, broken and solid sandstone ledges, 4th. rate.

subsoil, solid sandstone.

Timber, cedar and pinon.

Mountainous land or heavily timbered land on 80.10 chs.

September 2, 1911

Melvin H. Heist
U.S. Transitman

July 20: At 8h. 06m., a.m., l.m.t., I set off 37°43'N. on lat. arc, 20°49'N. on decl. arc, and determine a meridian with the solar at the re-established stan. cor. of secs. 34 and 35, heretofore described on the Seventh Standard Parallel

CHAINS

South.

Thence I run

N.0°12'E.,bet.secs.34 and 35.

Descend over rocky land,through heavy timber.

35.00 Begin abrupt descent over sandstone ledges,bearing E.and W.

37.00 Ravine,75 ft.deep,course NE.

Abrupt ascent. Leave timber,bears NW.and SE.

38.00 Sandstone spur,projects E.

Abrupt descent over sandstone ledges.

40.00 Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S 34 on W. half,S 35 on E.half,and raise a mound of stone,2 ft.base,1 $\frac{1}{2}$ ft.high,W.of cor.

Pits impracticable.

47.50 Foot of ledges,550 ft.high,bearing NW.and SE.

Over level bottom of Montezuma Canyon,through dense undergrowth.

79.00 Montezuma Creek,15 lks.wide,6 ins.deep,course SE.

80.00 Set an iron post,3 ft.long,2 ins.dia.,24 ins.in the ground,for cor.of secs.26-27-34 and 35,marked on brass cap,T 35 S S 27 in NW.,

R 24 E S 26 in NE.,

S 35 in SE.and S 34 in SW.quadrant,and raise a mound of stone,2 ft.base,1 $\frac{1}{2}$ ft.high,W.of cor.

Pits impracticable.

Land,rolling,mountainous and level.

Soil,sandy loam,over 24 ins.deep,in bottom of canyon,for

32.50 chs. balance,rocky and sandstone ledges,4th.

rate; subsoil,sandstone.

Timber,cedar and pinon.

Undergrowth,sage brush:

Heavily timbered land,mountainous land or land covered with dense undergrowth on 80.00 chs.

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS	
	East, on a random line, bet. secs. 26 and 35.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.02	Intersect N. and S. line, 9 lks. S. of the cor. of secs. 25-26-35 and 36. Thence I run S. $89^{\circ}56'$ W., on a true line, Bet. secs. 26 and 35. Descend over broken and rocky land, through heavy timber.
13.75	Begin abrupt descent, bears NE. and SW.
15.20	Ravine, 75 ft. deep, course SW. Abrupt ascent.
16.90	Top of abrupt ascent, bears NE. and SW. Over rolling land.
34.50	Begin abrupt descent, bears NE. and SW.
36.00	Ravine, 100 ft. deep, course SW. Abrupt ascent.
37.10	Top of abrupt ascent, bears NE. and SW. Over top of spur, projecting S.
40.01	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 26 on N. half, S 35 on S. half, from which A pinon, 6 ins. dia. bears N. $2^{\circ}10'$ E., 7 lks. dist., marked $\frac{1}{4}$ S 26 BT. A cedar, 7 ins. diam., bears S. $50^{\circ}30'$ W., 59 lks. dist., marked $\frac{1}{4}$ S 35 BT.
41.00	Begin abrupt descent, bears N. and S.
43.20	Ravine, 120 ft. deep, course S. Abrupt ascent.
47.88	Top of abrupt ascent, bears N. and S. Gradual descent over rocky and rolling land.
54.18	Begin abrupt descent over sandstone ledges, bearing NW. and SE.
72.60	Foot of ledges, 620 ft. high, bearing NW. and SE. Leave timber, bears NW. and SE. Over level land in bottom of Montezuma Canyon, through dense undergrowth.

CHAINS

80.02 The cor.of secs.26-27-34 and 35.
 Land,broken,rolling,mountainous and level.
 Soil,sandy loam over 24 ins.deep,in bottom of canyon,on
 7.42 chs.;balance,rocky,broken ledges and solid
 sandstone ledges,4th.rate.
 subsoil,sandstone.
 Timber,cedar and pinon.
 Undergrowth, sage brush.
 Heavily timbered land,mountainous land and land covered
 with dense undergrowth on 80.02 chs.
 August 20: Sky overcast,observation for latitude not
 possible.

N.0°12'E.bet.secs.26 and 27.

Over level land in bottom of Montezuma Canyon,through
 dense undergrowth.
 2.40 Montezuma Creek, 15 lks.wide,6 ins.deep,course SW.
 7.30 Same creek,15 lks.wide,6 ins.deep,course SE.
 9.50 Same creek,15 lks.wide,6 ins.deep,course SW.from N.
 Along bottom of creek.
 13.20 Leave creek,course from NW.to S.
 27.40 Begin abrupt ascent over sandstone ledges,bearing NW.and
 SE.
 Enter heavy timber,bears NW.and SE.
 31.75 Top of spur,projects W.
 Abrupt descent.
 40.00 Set an iron post,3 ft.long,^{12 ins.in the ground}1 in.dia.,in mound of stone
 and earth,for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S 27 on W.
 half,S 26 on E.half,from which
 A cedar,9 ins.diam.,bears N.66°24'E.,39 lks.
 dist.,marked $\frac{1}{4}$ S 26 BT.
 A cedar,7 ins.diam.,bears N.39°57'W.,28 lks.dist.
 marked $\frac{1}{4}$ S 27 BT.

Note:
 On account of natural obstacles it is impossible
 to set this post over 12 ins.in the ground

CHAINS

July 20, 1911

July 21: At 8h.00m, a.m., l.m.t., I set off $37^{\circ}44'$ N. on lat. arc, $20^{\circ}33'$ N. on decl. arc, and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. bet. secs. 26 and 27. Thence I continue $N.0^{\circ}12'E.$, bet. secs. 26 and 27, with continuous measurement.

42.75 Foot of abrupt descent, bears NE. and SW.

Leave timber, bears NE. and SW.

Over level land in bottom of Montezuma Canyon, through dense undergrowth.

46.75 Montezuma Creek, 15 lks. wide, 6 ins. deep, course SW.

30.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 22-23-26 and 27, marked on brass cap, T 35 S S 22 in NW.,

R 24 E S 23 in NE.,

S 26 in SE. and S 27 in SW. quadrant, dig pits, $18 \times 18 \times 12$ ins in each sec., $5\frac{1}{2}$ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, level and mountainous.

Soil, sandy loam over 24 ins. deep, in bottom of canyon for 64.65 chs. balance, sandstone ledges, 4th. rate. subsoil, loam in bottom, balance, solid sandstone.

Timber, cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth or heavily timbered land and mountainous land on 30.00 chs.

$N.89^{\circ}56'E.$, on a random line, bet. secs. 23 and 26.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.94 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 23-24-25 and 26.

Thence I run

$S.89^{\circ}54'W.$, on a true line,

Bet. secs. 23 and 26.

Descend over rocky land, through heavy timber.

CHAINS	
7.50	Abrupt descent over sandstone ledges, bears NE. and S.
10.12	Foot of abrupt descent, bears NE. and S., 150 ft. below top of ledges.
	Gradual descent over rolling mesa, through heavy timber.
39.97	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 23 on N. half, S 26 on S. half, from which
	A pinon, 7 ins. diam., bears N. 85° 27' E. 41 lks. dist., marked $\frac{1}{4}$ S 23 BT.
	A cedar, 9 ins. diam., bears S. 12° 04' E. 21 lks. dist., marked $\frac{1}{4}$ S 26 BT.
55.70	Top of sandstone ledges, bears NE. and SW. Abrupt descent.
66.10	Foot of abrupt descent, bears NE. and SW., 600 ft. below top of ledges, leave heavy timber, bears NE. and SW., enter dense undergrowth, over level bottom of canon.
69.10	Montezuma Creek, 15 lks. wide 5 ins. deep, course SW.
79.94	The cor. of secs. 22-23-26 and 27. Land rolling, mountainous and level. Soil, rocky loam, 10 to 15 in. deep, 2nd. rate, on mesa, sandy loam, from 3 to 4 ft. deep in bottom of canon, 1st. rate. balance, broken ledges and rocky, 4th. rate. Timber, heavy pinon and cedar. Undergrowth, dense sage brush. Rolling and Mountainous land heavily timbered and level land, covered with dense undergrowth on 79.94 chs. July 21: At this cor. I set off 20° 36' N on decl. arc, and at 0h. 06m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 45' N.
	N. 0° 12' E., bet. secs. 22 and 23.
	Gradual ascent over level bottom of Montezuma Canyon through dense undergrowth.
23.75	Begin abrupt ascent, along SE. slope of Montezuma Canyon, leave dense undergrowth, enter heavy timber, bears NE. and SW.

CHAINS

- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22 on W. half, S. 23 on E. half, from which
- A pinon, 8 ins. diam., bears East 20 lks. dist., marked $\frac{1}{4}$ S 23 BT.
- A cedar, 5 ins. diam., bears S. $72^{\circ}31'$ W. 21 lks. dist., marked $\frac{1}{4}$ S 22 BT.
- 75.80 Top of sandstone ledges, 600 ft. above bottom of Montezuma Canyon, bears NE. and SW.
- Gradual ascent over rolling rocky land.
- 80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 14 -15-22-and 23, marked on brass cap. T 35 S S 15 in NW.,
- R 24 E S 14 in NE.,
- S 23 in SE. and S 22 in SW. quadrant, from which
- A cedar, 12 ins. diam., bears N. $41^{\circ}27'$ E. 25 lks. dist., marked T 35 S R 24 E S 14 BT.
- A pinon, 8 ins. diam., bears S. $62^{\circ}26'$ E. 81 lks. dist., marked T 35 S R 24 E S 23 BT.
- A pinon, 8 ins. diam., bears S. $38^{\circ}56'$ W. 77 lks. dist., marked T 35 S R 24 E S 22 BT.
- A pinon, 6 ins. diam., bears N. $52^{\circ}51'$ W. 42 lks. dist., marked T 35 S R 24 E S 15 BT.
- Land, level and mountainous.
- Soil, sandy loam, from 4 to 5 ft. deep in the bottom of can-
1st. rate, balance: rocky loam, 5 to 10 ins. deep on
solid sandstone, 3rd. rate.
- Timber, heavy cedar and pinon.
- Undergrowth, dense sage brush.
- Land level covered with dense undergrowth or mountainous
land heavily timbered.

July 21, 1911

SUBDIVISIONS OF T.35 S., R.24 E.

CHAINS

July 22: At 8h.06m., a.m., l.m.t., I set off 37°48' N. on lat. arc, 20°27' N. on decl. arc, and determine a meridian with the solar at the cor. of secs. 2-3-10 and 11, which is a sandstone, 8x12x8 ins. above ground, marked and witnessed as described by the surveyor general.

Thence I run

S. 0°01' E., retracing bet. secs. 10 and 11.

Gradual descent over rolling and rocky land, through heavy timber.

- 1.90 Wash, 100 lks. wide, 50 ft. deep, course E.
- 9.00 Wash, 75 lks. wide, 25 ft. deep, course E.
- 12.25 Wash, 75 lks. wide, 30 ft. deep, course E.
- 32.00 Wash, 100 lks. wide, 40 ft. deep, course E.
- 38.22 Intersect the $\frac{1}{4}$ sec. cor. which is a sandstone, 6x12x4 ins. above ground, marked and witnessed as described by the surveyor general.

Thence I run

S. 0°01' E., on a random line bet. secs. 10 and 11.

- 40.00 Set temp. cor. for cor. of secs. 10-11-14 and 15.

Thence I run

West, on a random line, bet. secs. 10 and 15.

- 40.00 Fall 102 lks. S. of the $\frac{1}{4}$ sec. cor. bet. secs. 10 and 15, which is a sandstone, 8x8x6 ins. above ground, marked and witnessed as described by the surveyor general.

From the $\frac{1}{4}$ sec. cor. bet. secs. 10 and 15, I run

East, on a true line, bet. secs. 10 and 15.

- 21.82 Descend over rocky and broken land, through heavy timber. I destroy all traces of the witness cor.

- 40.00 Intersect the random line, bet. secs. 10 and 11, 102 lks. S. of the temp. cor. for secs. 10-11-14 and 15.

Set an iron post, 3 ft. long, 2 ins. dia. 24 ins. in the ground, for cor. of secs. 10-11-14 and 15, marked on brass cap, T 35 S S 10 in NW.,

R 24 E S 11 in NE.,

S 14 in SE. and S 15 in SW. quadrant, from which

A cedar, 15 ins. diam., bears N. 55°52' W., 6 lks. dist.,

marked T 35 S R 24 E S 10 BT.

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

No other trees within limits and raise a mound of stone,
2 ft.base, $1\frac{1}{2}$ ft.high, W.of cor.

Pits impracticable.

Land,rolling and broken.

Soil,rocky ,broken and solid sandstone ledges, 4th.rate.
subsoil,solid sandstone.

Timber, cedar and pinon.

Heavily timbered land on 40.00 chs.

From the cor.of secs.10-11-14 and 15, I run

N.0°01'W.,on a true line,

Bet.secs.10 and 11.

Ascend over broken and rocky land,through heavy timber.

41.02

The $\frac{1}{4}$ sec.cor.,bet.secs.10 and 11,already described.

Land;rolling and broken.

Soil,rocky,broken and solid sandstone ledges,4th.rate.
subsoil,solid sandstone.

Timber,cedar and pinon.

Heavily timbered land on 41.02 chs.

July 22:

At the cor.of secs.14-15-22 and 23, I set off $20^{\circ}24'N$.on
decl.arc,and at Oh.06m.,p.m.,1.m.t., observe the sun on
the meridian the resulting lat.is $37^{\circ}46'N$.

Thence I run

N.89°54'E.,on a random line,bet.secs.14 and 23.

40.00

Set temp. $\frac{1}{4}$ sec.cor.

79.96

Intersect N.and S.line,9 lks.N.of the cor.of secs.
13-14-23 and 24.

Thence I run

S.89°58'W.,on a true line,

Bet.secs.14 and 23.

Descend abruptly over rocky and mountainous land,through
heavy timber.

10.50

Foot of abrupt descent,bears NE.and SW.

Leave timber,bears NE.and SW.

Over level land in mouth of Pearson Canyon,at junction
with Montezuma Canyon,through dense undergrowth.

SUBDIVISIONS OF T.35 S., R.24 E.

CHAINS

- 19.10 Wash of Pearson Canyon, 80 lks. wide, 10 ft. deep, course SW.
- 39.98 Set an iron post, 3 ft. long, 1 in. dia., $\frac{1}{2}$ ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 14 on N. half, S 23 on S. half, dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 43.10 Montezuma Creek, 15 lks. wide, 6 ins. deep, course S.
- 53.09 Begin abrupt ascent over broken sandstone ledges, bearing NW. and SE.
Enter heavy timber, bears NW. and SE.
- 76.19 Top of ledges, 600 ft. above bottom of canyon, bearing NE. and SW.
Gradual ascent over rolling land.
- 79.96 The cor. of secs. 14-15-22 and 23.
Land, rolling, mountainous and level.
Soil, sandy loam over 24 ins. deep, 1st. rate in bottom of canyon for 42.59 chs.; balance, broken and solid sandstone ledges, 4th. rate.
subsoil, solid sandstone.
Timber, cedar and pinon.
Undergrowth, sage brush.
Mountainous End, land covered with dense undergrowth or heavily timbered land on 79.96 chs.

Knowing from previous closing that the line bet. secs. 14 and 15 will not close within limits on the cor. of secs. 10-11-14 and 15, I run

N. 0° 12' E., on a true line,

bet. secs. 14 and 15.

Gradual descent over rocky land, through heavy timber.

- 4.25 Abrupt descent over sandstone ledges, bearing E. and W.
- 14.00 Ravine, 125 ft. deep, course E.
Abrupt ascent.
- 25.10 Top of ledges, bearing NE. and SW.
Gradual ascent over rocky and broken land.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., $\frac{1}{2}$ ins. in the

CHAINS

ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 15 on W. half; S 14 on E. half, from which

A pinon, 6 ins. diam.; bears S. $26^{\circ}07'$ E., 49 lks. dist. marked $\frac{1}{4}$ S 14 BT.

A pinon, 7 ins. diam., bears S. $75^{\circ}54'$ W., 19 lks. dist. marked $\frac{1}{4}$ S 15 BT.

80.82 Intersect S. bdy. of sec. 10; at West, 83 lks. from the cor. of secs. 10-11-14 and 15'

Set an iron post, 3 ft. long, 2 ins. dia.; 24 ins. in the ground, for closing cor. of secs. 14 and 15, marked on brass cap, T 35 S R 24 E S 10 CC on W. half, S 14 in SE. and S 15 in SW. quadrant, from which

A pinon, 7 ins. diam., bears S. $77^{\circ}38'$ E., 45 lks. dist., marked T 35 S R 24 E S 14 BT.

A cedar, 20 ins. diam., bears S. $60^{\circ}32'$ W., 11 lks. dist. marked T 35 S R 24 E S 15 BT.

I destroy all marks on the cor. of secs. 10-11-14 and 15, that pertain to secs. 14 and 15.

Land, rolling and mountainous.

Soil, rocky, broken and solid sandstone ledges, 3rd. and 4th. rate. subsoil, solid sandstone.

Timber, cedar and pinon.

Heavily timbered land on 80.82 chs.

July 22, 1911

Eben B. Andrews
U.S. Transitman

July 24: At 8h.06m., a.m., l.m.t., I set off $37^{\circ}44'$ N. on lat. arc, $20^{\circ}03'$ N. on decl. arc, and determine a meridian with the solar at the cor. of secs. 27-28-33 and 34, which is a sandstone, 6x10x4 ins. above ground, marked and witnessed as described by the surveyor general.

Thence I run

East, on a random line, bet. secs. 27 and 34.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.10 Intersect N. and S. line, 18 lks. N. of the cor. of secs.

CHAINS

26-27-34 and 35.

Thence I run

N.89°52'W., on a true line,

Bet. secs. 27 and 34.

Over level land in bottom of Montezuma Canyon, through dense undergrowth.

0.75 Montezuma Creek, 15 lks. wide, 6 ins. deep, course S.

27.90 Begin abrupt ascent over sandstone ledges, bearing NW. and SE.

35.00 Top of ledges, 600 ft. above bottom of canyon, bearing NW. and SE.

Gradual ascent over rolling and rocky land, through heavy timber.

40.05 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 27 on N. half, S 34 on S. half, from which

A pinon, 6 ins. diam., bears N.17°E., 23 lks. dist., marked $\frac{1}{4}$ S 27 BT.

A pinon, 10 ins. diam., bears S.67°W., 31 lks. dist., marked $\frac{1}{4}$ S 34 BT.

80.10 The cor. of secs. 27-28-33 and 34.

Land, level, mountainous and rolling.

Soil, sandy loam, over 24 ins. deep, 1st. rate on first 27.90 chs., balance, rocky, broken and solid sandstone ledges, 3rd and 4th. rate.

Subsoil, gravel on first part, balance, solid sandstone

Timber, cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth, heavily timbered land or mountainous land on 80.10 chs.

July 24: At this cor. I set off 20°00'N. on decl. arc, and at Oh.06m., p.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37°44'N.

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

From the cor.of secs.27-28-33 and 34,I run
 N.0°02'W.,retracing bet.secs.27 and 28.
 Gradual descent over rocky land,through heavy timber.

40.00 Intersect the $\frac{1}{4}$ sec.cor.which is a sandstone,5x10x10 ins
 above ground,marked and witnessed as described by the
 surveyor general.
 Thence I run
 N.0°11'E.,bet.secs.27 and 28.
 Gradual descent over broken and rocky land,through
 heavy timber.

28.00 Begin abrupt descent over sandstone ledges,bearing
 E.and W.

35.00 Foot of abrupt descent,500 ft.high,bearing E.and W.
 Leave timber,bears E.and W.
 Over level land in bottom of Dodge Canyon,through dense
 undergrowth.

36.50 Creek,5 lks.wide,4 ins.deep,in Dodge Canyon,course SE.

40.00 Set an iron post,3 ft.long,2 ins.dia.,24 ins.in the
 ground,for cor.of secs.21-22-27 and 28,marked on brass
 cap,T 35 S S 21 in NW.,
 R 24 E S 22 in NE.,
 S 27 in SE.and S 28 in SW.quadrant, dig pits,18x18x12
 ins.in each sec.,5 $\frac{1}{2}$ ft.dist.,and raise a mound of earth
 4 ft.base,2 ft.high,W.of cor.
 Land,rolling,mountainous and level.
 Soil,rocky,broken and solid sandstone ledges,3rd.and
 4th.rate on first 35.00 chs. balance,sandy loam
 from 12 to 30 ins.deep,1st rate.
 Subsoil,solid sandstone.
 Timber,cedar and pinon.
 Undergrowth,sage brush.
 Heavily timbered land,mountainous land or land covered
 with dense undergrowth on 40.00 chs.

July 24, 1911

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

July 25: At 8h. 06m., a.m., l.m.t., I set off $37^{\circ}45'N.$ on lat. arc, $19^{\circ}50'N.$ on decl. arc, and determine a meridian with the solar at the cor. of secs. 21-22-27 and 28.

Thence I run

S. $89^{\circ}52'E.$, on a random line, bet. secs. 22 and 27.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.08 Intersect N. and S. line, 21 lks. S. of the cor. of secs. 22-23-26 and 27.

Thence I run

S. $89^{\circ}59'W.$, on a true line,

Bet. secs. 22 and 27.

Over level land, in bottom of Montezuma Canyon, through dense undergrowth.

2.75 Begin abrupt ascent over sandstone ledges, bearing N. and S.

4.00 Enter heavy timber, bearing N. and S.

22.34 Top of ledges, 600 ft. above canyon, bearing N. and S. Gradual descent over broken and rocky land.

37.90 Begin abrupt descent over sandstone ledges, bearing NW. and SE.

40.04 Set an iron post, 3 ft. long, 1 in. dia., $\frac{1}{4}$ ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22 on N. half, S 27 on S. half, from which

A cedar, 7 ins. diam., bears S. $29^{\circ}16'E.$, 19 lks. dist., marked $\frac{1}{4}$ S 27 BT.

A pinon, 5 ins. diam., bears N. $89^{\circ}40'E.$, 29 lks. dist., marked $\frac{1}{4}$ S 22 BT.

48.00 Foot of abrupt descent, bears NW. and SE.

Leave timber, bears NW. and SE.

Gradual ascent through dense undergrowth, in bottom of Dodge Canyon.

49.30 Wash, 25 lks. wide, 10 ft. deep, course S.

80.08 The cor. of secs. 21-22-27 and 28.

Land, level, mountainous and rolling.

Soil, sandy loam from 24 to 36 ins. deep, 1st. rate in bottom of canyons. balance, sandstone ledges, 4th. rate.

CHAINS

Subsoil, sandstone.
 Timber, cedar and pinon.
 Undergrowth, sage brush.
 Land covered with dense undergrowth, mountainous land or heavily timbered land on 80.08 chs.
 July 25: At this cor. I set off $19^{\circ}48'N$. on decl. arc, and at 0h.06m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N$.

$N.0^{\circ}11'E$, bet. secs. 21 and 22.

Over level land in bottom of Dodge Canyon, through dense undergrowth.

- 3.50 Begin abrupt ascent over sandstone ledges, bearing E. and W.
- 5.00 Enter heavy timber, bearing E. and W.
- 14.50 Top of abrupt ascent, 450 ft. above sec. cor., bearing E. and W.
 Gradual ascent over rolling and rocky land.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked on brass cap, $\frac{1}{2}$ S 21 on W. half, S 22 on E. half, from which
 - A cedar, 14 ins. diam., bears $N.69^{\circ}17'E$, 29 lks. dist. marked $\frac{1}{2}$ S 22 BT.
 - A cedar, 10 ins. diam., bears $S.74^{\circ}10'W$, 34 lks. dist., marked $\frac{1}{2}$ S 21 BT.
- 41.00 Begin abrupt descent, bears NW. and SE.
- 42.50 Ravine, 60 ft. deep, course SE.
 Abrupt ascent.
- 44.10 Top of abrupt ascent, bears NW. and SE.
 Gradual ascent over rolling land.
- 80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 15-16-21 and 22, marked on brass cap, T 35 S S 16 in NW.,
 R 24 E S 15 in NE.,
 S 22 in SE. and S 21 in SW. quadrant, from which

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

A pinon, 12 ins. diam., bears N. 38°52'E., 65 lks. dist., marked T 35 S R 24 E S 15 BT.

A pinon, 8 ins. diam., bears S. 12°56'E., 30 lks. dist., marked T 35 S R 24 E S 22 BT.

A cedar, 14 ins. diam., bears S. 37°32'W., 17 lks. dist., marked T 35 S R 24 E S 21 BT.

A pinon, 8 ins. diam., bears N. 38°03'W., 30 lks. dist., marked T 35 S R 24 S 16 BT.

Land, level, mountainous and rolling.

Soil, sandy loam, from 15 to 24 ins. deep, 1st. rate on first 3.50 chs.; balance, rocky, broken and solid sandstone ledges, 3rd. and 4th. rate.

Timber, cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth, mountainous land or heavily timbered land on 80.00 chs.

N. 89°59'E. on a random line, bet. secs. 15 and 22.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.02 Intersect N. and S. line, 3 lks. N. of the cor. of secs. 14-15-22 and 23.

July 25, 1911

July 26: At 8h. 06m., a.m., l.m.t., I set off 37°46'N. on lat. arc, 19°37'N. on decl. arc, and determine a meridian with the solar at the cor. of secs. 14-15-22 and 23.

Thence I run

West, on a true line, bet. secs. 15 and 22.

Gradual descent over rocky land, through heavy timber.

11.50 Begin abrupt descent, bears NE. and SW.

13.00 Ravine, 75 ft. deep, course SW.

Abrupt ascent.

15.00 Top of abrupt ascent, bears NE. and SW.

Gradual descent over rolling land.

34.10 Begin abrupt descent over sandstone ledges, bearing N. and S.

40.01 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the

SUBDIVISIONS OF T. 35 S., R. 24 E.

CHAINS

- ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 15 on N. half, S 22 on S. half, from which
- A pinon, 6 ins. diam., bears N. 22° 25' W., 13 lks. dist., marked $\frac{1}{4}$ S 15 BT.
- A pinon, 6 ins. diam., bears S. 67° 54' E., 24 lks. dist., marked $\frac{1}{4}$ S 22 BT.
- 45.20 Hollow, 200 ft. below top of ledges, course S.
Abrupt ascent.
- 48.00 Top of abrupt ascent, bears N. and S.
Gradual ascent over broken and rocky land.
- 80.02 The cor. of secs. 15-16-21 and 22.
Land, rolling and mountainous.
Soil, rocky, broken and solid sandstone ledges, 3rd. and 4th. rate. Subsoil, solid sandstone.
Timber, cedar and pinon.
Mountainous land or heavily timbered land on 80.02 chs.
-
- From the cor. of 8-9-16 and 17, which is a sandstone 5x10x5 ins. above ground, marked and witnessed as described by the surveyor general, I run
- East, retracing bet. secs. 9 and 16.
Descend over rolling and rocky land, through heavy timber
- 34.75 Begin abrupt descent over sandstone ledges, bearing N. and S.
- 37.00 Hollow, 75 ft. deep, course N.
Abrupt ascent.
- 39.00 Top of abrupt ascent, bears N. and S.
Descend over rolling land.
- 40.06 Fall 23 lks. S. of the $\frac{1}{4}$ sec. cor. which is a sandstone, 8x16x8 ins. above ground, marked and witnessed as described by the surveyor general.
I continue on same line.
- 53.00 Begin abrupt descent over sandstone ledges, bearing N. and S.
- 55.00 Hollow, 75 ft. deep, course S.
Abrupt ascent.

CHAINS	
57.00	Top of abrupt ascent, bears NW. and SE. Gradual descent over rolling land.
67.00	Begin abrupt descent, bears NE. and SW.
68.25	Hollow, 100 ft. deep, course SW. Abrupt ascent.
71.50	Top of abrupt ascent, bears NE. and SW. Descend over rolling land.
81.14	Fall 46 lks. S. of the cor. of secs. 9-10-15 and 16, which is a sandstone, 6x6x6 ins. above ground, marked and witnessed as described by the surveyor general. The course of this line is therefore N. 89°40' E. and the distance 81.14 chs. Land, rolling and mountainous. Soil, rocky, broken sandstone ledges, 3rd. and 4th. rate. Subsoil, solid sandstone, Timber, cedar and pinon. Heavily timbered land or mountainous land on 81.14 chs. July 26: At this cor. I set off 19°34' N. on decl. arc, and at 0h:06m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37°47' N.
	Knowing from retracements, that the line bet. secs. 15 and 16 will not close within limits on the cor. of secs. 9-10-15 and 16, I begin at the cor. of secs. 15-16-21 and 22 and run N. 0°11' E., on a true line, Bet. secs. 15 and 16. Gradual ascent over broken and rocky land, through heavy timber.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 16 on W. half, S 15 on E. half, from which A pinon, 5 ins. diam., bears S. 22°03' W., 10 lks. dist., marked $\frac{1}{4}$ S 16 BT. A pinon, 5 ins. diam., bears S. 63°37' E., 14 lks. dist., marked $\frac{1}{4}$ S 15 BT.

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

- 50.00 Begin abrupt descent,bears NW.and SE.
- 53.00 Ravine,150 ft.deep,course SE.
Abrupt ascent.
- 55.00 Top of abrupt ascent,bears NW.and SE.
Ascend over rolling land.
- 67.15 Begin abrupt ascent over sandstone ledges,bearing E.
and W. Leave timber,bears E.and W.
- 69.20 Top of ledges,100 ft.high,bearing E.and W.
Gradual ascent over rolling land,through dense undergrowth
- 80.72 Intersect S.bdy.of sec.9, S.89°40'W.,89 lks.from the
cor.of secs.9-10-15 and 16,heretofore described.
Set an iron post,3 ft.long,2 ins.dia.,24 ins.in the
ground,for closing cor.of secs.15 and 16,marked on brass
cap,CCT35 S R 24 E S 9 S 10 CC on N.half,
S 15 in SE.and S 16 in SE quadrant,and raise a mound of
stone,2 ft.base,1½ ft.high,S.of cor.
Pits impracticable.
I destroy all marks on the cor.of secs.9-10-15 and 16
that pertain to secs.15 and 16.
Land,rolling and mountainous.
Soil,rocky,broken and solid sandstone ledges,3rd.and
4th.rate.
Subsoil,solid sandstone.
Timber,cedar and pinon.
Undergrowth,sage brush.
Heavily timbered land,mountainous land or land covered
with dense undergrowth on 80.72 chs.

July 26, 1911

July 27: At 8h.06m.,a.m.,1.m.t.,I set off 37°45'N.on
lat.arc,19°24'N.on decl.arc,and determine a meridian at
the cor.of secs.20-21-28 and 29,heretofore described.
Thence I run
N.89°57'E.,on a random line,bet.secs.21 and 28.

- 40.00 Set temp.¼ sec.cor.

SUBDIVISIONS OF T.35 S.,R.24 E.

CHAINS

80.20. Intersect N.and S.line,5 lks.N.of the cor.of secs.
21-22-27 and 28.
Thence I run
S.89°59'W.,on a true line,
Bet.secs.21 and 28.
Gradual ascent in bottom of Dodge Canyon,through dense
undergrowth.

12.30 Creek,5 lks.wide,4 ins.deep,course SE.

14.50 Same creek;5 lks.wide,4 ins.deep,course NE.

18.40 Same creek,5 lks.wide,4 ins.deep,course SE.

20.80 Same creek,5 lks.wide,4 ins.deep,course NE.

29.60 Same creek,4 lks.wide,6 ins.deep,course SE.

36.75 Same creek,3 lks.wide,6 ins.deep,course NE.

40.10 Set an iron post,3 ft.long,1 in.dia.,26 ins.in the
ground,for $\frac{1}{4}$ sec.cor.,marked on brass cap, $\frac{1}{4}$ S 21 on N.
half,S 28 on S.half,and raise a mound of stone,2 ft.base,
1 $\frac{1}{2}$ ft.high,N.of cor.
Pits impracticable.

46.40 Same creek, 2 lks.wide, 4 ins.deep,course SE.

48.10 Same creek,2 lks.wide,4 ins.deep,course NE.

49.15 Same Creek,1 lks.wide,5 ins.deep,course SE.

51.00 Leave canyon,course from NW.to E.
Begin abrupt ascent over sandstone ledges bearing NW.
and SE.

54.00 Top of ledges,75 ft.high,bearing NW.and SE.
Gradual ascent over rolling and rocky land.

80.20 The cor.of secs.20-21-28 and 29.
Land,rolling and mountainous.
Soil,sandy loam from 12 to 24 ins.deep,in bottom of
canyon,1st.rate on 51.00 chs. balance,rocky and
broken sandstone ledges,3rd.and 4th.rate.
Subsoil,solid sandstone.
No timber.
Undergrowth,sage brush and oak brush.
Land covered with dense undergrowth or mountainous land
on 80.20 chs.

CHAINS

July 27: At this cor. I set off 19°21' N. on decl. arc, and at 0h. 06m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37°45' N.

From the cor. of secs. 16-17-20 and 21, heretofore describe

I run

N. 39°59' E., on a random line, bet. secs. 16 and 21.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

80.06 Intersect N. and S. line, 12 lks. N. of the cor. of secs. 15-16-21 and 22.

Thence I run

N. 39°58' W., on a true line,

Bet. secs. 16 and 21.

Gradual ascent over rolling and rocky land, through heavy timber.

40.03 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked on brass cap, $\frac{1}{2}$ S 16 on N. half, S 21 on S. half, from which

A cedar, 20 ins. diam., bears S. 22°58' W., 23 lks. dist., marked $\frac{1}{2}$ S 21 BT.

A cedar, 12 ins. diam., bears N. 29°51' E., 76 lks. dist., marked $\frac{1}{2}$ S 16 BT.

48.00 Spur, projects S.

Gradual descent over rolling land.

74.00 Begin abrupt descent, bears N. and S.

75.00 Ravine, 50 ft. deep, course S.

Abrupt ascent.

76.10 Top of abrupt ascent, bears N. and S.

Gradual ascent over rolling land.

80.06 The cor. of secs. 16-17-20 and 21.

Land, rolling and mountainous.

Soil, rocky and broken sandstone ledges, 3rd. and 4th. rate.

Subsoil, solid sandstone.

Timber, cedar and pinon.

Mountainous land or land heavily timbered on 80.06 chs.

July 27, 1911

Melvin D. Heist
U.S. Transitman

G E N E R A L D E S C R I P T I O N .

This township is broken in character, being a solid sandstone formation cut by deep canyons, along the sides of which the sandstone crops in solid and broken ledges. The benches along the sides of the canyons are rocky and generally have a thin layer of rocky soil on the solid sandstone.

The only land suitable for agriculture is the bottom land along the bottom of Montezuma and a portion of Dodge Canyon, where the soil is a rich sandy loam, ranging from 12 to 36 ins. in depth and is capable of producing crops with irrigation.

A heavy growth of cedar and pinon timber is found on the entire fractional township with the exception of the bottom of the canyons where a dense growth of sage brush is found.

The township is watered by a creek in Montezuma canyon, which runs south through the eastern portion of the township and by a creek in Dodge canyon which is about 2 miles in length and joins the creek in Montezuma canyon in sec. 27.

There are no settlers or roads in this fractional township. There are no indications of coal, oil or minerals found in this fractional township.

Melvin D. Heist
Eben B. Andrews
U.S. Transitmen

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FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191____, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oaths of transitmen see book "Z¹" T. 32 S., R. 26 E.

_____ of the _____ Meridian, in the State of _____, which are represented by the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191____



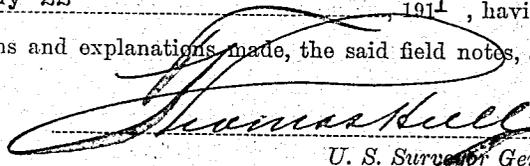
APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 19, 191____

The foregoing field notes of the survey of the subdivisional lines of Township No. 35 South, Range No. 24 East of the Salt Lake Base and Meridian, Utah

executed by Melvin D. Heist and Eben R. Andrews }
their under his special instructions dated May 22, 191____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.


U. S. Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office

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FILED
FEB 10 1911
[Handwritten signature]

V. J. E. J.

"H"
BOOK A-394

FIELD NOTES

RESURVEY
OF THE SURVEY OF THE

E. J. E. J.

SEVENTH STANDARD PARALLEL SOUTH, THROUGH RANGE 25 EAST.

Of the SALT LAKE BASE and Meridian,

In the State of UTAH.

EXECUTED BY

Melvin D. Heist and Eben B. Andrews,

Transitmen

In the capacity of U. S. Surveyors, under instructions dated May 22, 1911,

issued by the United States Surveyor General to govern surveys included in

Group No. 12, which were approved by the Commissioner of the General Land

Office, June 17, 1911, pursuant to authority contained in the Act of

Congress dated 1911.

Survey commenced July 31, 1911

Survey completed August 4, 1911

Rev. 6-20-00

INDEX DIAGRAM.

Township 35 S., Range 25 E.

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31	32	33	34	35	36
2	3	4	6	7	8

Resurvey Seventh Standard Parallel South, through Range 25 E.

Survey commenced July 31, 1911, and executed with the instrument described in book "A" of this survey.

I examine the adjustments of the transit, and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At the re-established standard cor. of Tp. 35 S., Rs. 24 and 25 E., heretofore described, in approximate lat. $37^{\circ} 43' N.$; long. $109^{\circ} 16' 01'' W.$, at 4h 06m, p.m. l.m.t. I set off $37^{\circ} 43' N.$ on the lat. arc; $18^{\circ} 24' N.$ on the decl. arc; and determine with the solar a meridian, and mark the point thereof, on a stone firmly set in the ground 5 chs. N. of the cor.

At 10h 58m p.m. l.m.t., I observe Polaris at eastern elongation, in accordance with instructions in the Manual, and mark a point in the line thus determined on a peg driven in the ground 5 chs. N. of the cor.

July 31, 1911.

Aug. 1: At 7 a.m., I lay off the azimuth of Polaris $1^{\circ} 28'$ to the west, and mark the meridian thus determined by cutting a small groove in the stone set last evening, on which the meridian falls 0.3 ins. east of the mark determined by the solar.

At 8h 06m a.m. l.m.t., I set off $37^{\circ} 43' N.$ on the lat. arc; $18^{\circ} 14' N.$ on the decl. arc; and mark the meridian thus determined, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observations.

The solar apparatus by a.m. and p.m. observations, defines positions for the meridian about $0' 16''$ west and $0' 16''$ east, respectively, of the meridian established by

Resurvey Seventh Standard Parallel South, through Range 25 East.

Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the meridian at 8h a.m., is N. 15° 35'W., the angle thus determined gives the mag. decl. 15°35'E.

Having found no corners on the 7th Stand.Par.S., through Rs.23 and 24 E., and there being no subdivisions dependent upon this line, I resurvey as follows: From the re-estab.Stand.cor.of Tp.35 S., Rs.24 and 25 E., heretofore described, I run

East, resurveying on S.bdy.of sec.31

Over mountainous land; descending abruptly over sandstone ledges, 200 ft.high, bearing NE. and SW.; through heavy timber.

- 8.00 Foot of abrupt descent. Begin gradual descent.
- 10.50 Ravine, 20 ft.deep, 40 ft.wide, in bottom of Horsehead Canon, drains SW. Ascend.
- 15.60 Begin abrupt ascent over sandstone ledges.
- 38.66 Top of ledges, 200 ft.high, bearing NW.and SE. Begin gradual ascent.
- Difference between measurements of 40.00 chs.by two sets of chainmen is 8 lks.; position of middle point
 - By 1st set 39.96 chs.
 - By 2d set 40.04 chs.; the mean of which is
- 40.00 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for re-estab.stand. $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 31 in N.half; from which
 - A pinyon pine 10 ins.dia.bears N.11°05'E.25 lks. dist., marked S C $\frac{1}{4}$ S 31 B T
 - A cedar 7 ins.dia.bears N.31°40'W.143 lks.dist. marked S C $\frac{1}{4}$ S 31 B T
- After diligent search find no trace of old stand. $\frac{1}{4}$ sec.cor
- Difference between measurement of 80.00 chs.by two sets of chainmen is 10 lks.; position of middle point
 - By 1st set 79.95 chs.
 - By 2d set 80.05 chs.; the mean of which is
- 80.00 Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in the ground, for re-established standard cor.of secs.31 and 32.

Resurvey Seventh Standard Parallel South, Through Range 25 East.

CHAINS

marked on brass cap,

T 35 S S 31 in NW. and

R 25 E S 32 in NE. quadrant; from which

A pinyon 8 ins. dia., bears, N. 38° 25' E., 47 lks. dist.,
marked T 35 S R 25 E S 32 BT.

A cedar 10 ins. dia., bears, N. 45° 30' W., 5 lks. dist.,
marked T 35 S R 25 E S 31 BT.

After diligent search no trace can be found of the old
standard cor. of secs. 31 and 32.

Land, mountainous.

Soil, loose rock and sandstone ledges, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land covered with dense timber on 80.00chs.

August 1: At 0h.06m., p.m., l.m.t., I set off 18° 11' N. on
the decl. arc, and at the standard cor. of secs. 31 and
32, observe the sun on the meridian, the resulting lat.
is 37° 43' N.

Thence I run

East resurveying on S. bdy. of sec. 32.

Ascend over mountainous land, through heavy timber.

10.08 Begin abrupt ascent over sandstone ledges.

12.54 Top of ledges, 150ft. high, bear, NE. and SW.

Thence over rolling mesa.

Difference between measurement of 40.00chs. by two sets
of chainmen is 4 lks.; position of middle point

By 1st. set, 39.98chs.

By 2nd. set, 40.02chs.; the mean of which is

40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground
for re-established standard $\frac{1}{4}$ sec. cor., marked on brass
cap, $\frac{1}{4}$ S 32 in N. half; from which

A pinyon 8 ins. dia., bears, N. 40° 54' E., 7 lks. dist.,
marked S C $\frac{1}{4}$ S 32 BT.

A cedar 6 ins. dia., bears, N. 39° 45' W., 178 lks. dist.,

CHAINS

marked S C $\frac{1}{4}$ S 32 BT.

After diligent search no trace can be found of the old standard $\frac{1}{4}$ sec. cor.

August 1, 1911.

August 2: At 8h.06m., p.m., l.m.t., I set off 37°43'N. on the lat. arc, 17°59'N. on the decl. arc, and at the above standard $\frac{1}{4}$ sec. cor. determine a meridian with the solar. Difference between measurement of 80.00chs. by two sets of chainmen is 6 lks.; position of middle point

By 1st. set, 79.97chs.

By 2nd. set, 80.03chs.; the mean of which is

80.00 Set an iron post, 3ft. long, 3ins. dia., 24ins. in the ground for re-established standard cor. of secs. 32 and 33, marked on brass cap,

T 35 S S 32 in NW. and

R 25 E S 33 in NE. quadrant; from which

A pinyon 8ins. dia., bears, N. 78°05'E., 58 lks. dist., marked T 35 S R 25 E S 33 BT.

A pinyon 6ins. dia., bears, N. 9°12'W., 20 lks. dist., marked T 35 S R 25 E S 32 BT.

After diligent search no trace can be found of the old standard cor. of secs. 32 and 33.

Land. mountainous and rolling.

Soil, sandy loam on mesa, 2nd. rate, balance sandstone ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land or land covered with dense timber on 80.00chs.

Thence I run

East resurveying on S. bdy. of sec. 33.

Over rolling mesa, through heavy timber.

18.22 Top of sandstone ledges, 150ft. high, dear, NE. and SW. Abrupt descent.

21.90 Foot of ledges.

Resurvey Seventh Standard Parallel South, Through Range 25 East.

CHAINS

Gradual descent.

Difference between measurement of 40.00chs. by two sets of chainmen is 2 lks.; position of middle point

By 1st. set, 39.99chs.

By 2nd. set, 40.01chs.; the mean of which is

40.00 Set an iron post 3ft, long 1 in.dia., 26ins. in the ground for re-established standard $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 33 in N. half; from which

A pinyon 5ins.dia., bears, N.78°50'E., 197 lks. dist., marked S C $\frac{1}{4}$ S 33 BT.

A pinyon 8ins.dia., bears, N.29°28'W., 87 lks. dist., marked S C $\frac{1}{4}$ S 33 BT.

After diligent search no trace can be found of the old standard $\frac{1}{4}$ sec. cor.

August. 2: At 10h.06m., p.m., l.m.t., I set off 17°56'N. on the decl. arc, and at the standard $\frac{1}{4}$ sec. cor. S. of sec. 33, observe the sun on the meridian, the resulting lat. is 37°43'N.

77.20 Ravine, 25ft. deep, 100ft. wide, drains SW.

Gradual ascent.

Difference between measurement of 80.00chs. by two sets of chainmen is 6 lks.; position of middle point

By 1st. set, 79.97chs.

By 2nd. set, 80.03chs.; the mean of which is

80.00 Set an iron post 3ft. long, 3ins.dia., 24ins. in the ground for re-established standard cor. of secs. 33 and 34, marked on brass cap,

T 35 S S 33 in NW. and

R 25 E S 34 in NE. quadrant; from which

A cedar 10ins.dia., bears, N.80°27'E., 56 lks. dist., marked T 35 S R 25 E S 34 BT.

A pinyon 9ins.dia., bears, N.73°10'W., 60 lks. dist., marked T 35 S R 25 E S 33 BT.

After diligent search no trace can be found of the old standard cor. of secs. 33 and 34.

CHAINS

Land, mountainous and rolling.

Soil, sandy loam on mesa, 2nd. rate, balance sandstone ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land or land covered with dense timber on 80.00chs.

August 2, 1911.

August 3: At 8h.06m., a.m., l.m.t. I set off $37^{\circ}43'N$ on the lat. arc, $17^{\circ}43'N$. on the decl. arc, and at the standard cor. of secs. 33 and 34, determine a meridian with the solar.

Thence I run

East resurveying on S. bdy. of sec. 34.

Ascend over mountainous land, through heavy timber.

Difference between measurement of 40.00chs. by two sets of chainmen is 8 lks.; position of middle point

By 1st. set, 39.96chs.

By 2nd. set, 40.04chs.; the mean of which is

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for re-established standard $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 34 in N. half; from which

A cedar 6ins. dia., bears, $N.5^{\circ}45'E.$, 143 lks. dist., marked S C $\frac{1}{4}$ S 34 BT.

A cedar 7ins. dia., bears, $N.47^{\circ}52'W.$, 37 lks. dist., marked S C $\frac{1}{4}$ S 34 BT.

After diligent search no trace can be found of the old standard $\frac{1}{4}$ sec. cor.

53.60 Begin abrupt ascent over sandstone ledges.

54.04 Top of ledges, 200ft. high, bear NW. and SE.

Gradual ascent.

59.70 Spur projects S. 6chs.

Gradual descent.

78.85 Top of sandstone ledges, 200ft. high, bear, NE. and SW.

Resurvey Seventh Standard Parallel South, Through Range 25 East.

CHAINS

Abrupt descent.

Difference between measurement of 80.00chs. by two sets of chainmen is 12 lks.; position of middle point

By 1st. set, 79.94chs.

By 2nd. set, 80.06chs.; the mean of which is

80.00 Set an iron post 3ft. long, 3ins. dia., 2 1/4 ins. in the ground for re-established standard cor. of secs. 34 and 35, marked on brass cap,

T 35 S S 34 in NW. and

R 25 E S 35 in NE. quadrant; from which:

A cedar 8ins. dia., bears, N. 68°02'E., 23 lks. dist., marked T 35 S R 25 E S 35 BT.

A cedar 10ins. dia., bears, N. 38°41'W., 63 lks. dist., marked T 35 S R 25 E S 34 BT.

After diligent search no trace can be found of the old standard cor. of secs. 34 and 35.

Land, mountainous.

Soil, sandstone ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land covered with dense undergrowth on 80.00 chs.

August 3: At 0h.06m., p.m., l.m.t., I set off 17°40'N. on the decl. arc, and at the re-established standard cor. of secs. 34 and 35, observe the sun on the meridian, the resulting lat. is 37°43'N.

Thence I run

East resurveying on S. bdy. of sec. 35.

Abrupt descent over sandstone ledges, through heavy timber.

4.60 Foot of ledges.

Gradual descent.

Difference between measurement of 40.00chs. by two sets of chainmen is 8 lks.; position of middle point

By 1st. set, 39.96chs.

Resurvey Seventh Standard Parallel South, Through Range 25 East.

CHAINS

By 2nd. set, 40.04chs.; the mean of which is
40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground
for re-established standard $\frac{1}{4}$ sec. cor., marked on brass
cap, $\frac{1}{4}$ S 35 in N. half; from which
A cedar 6 ins. dia., bears, N. 47° 25' E., 115 lks. dist.,
marked S C $\frac{1}{4}$ S 35 BT.
A pinyon 5 ins. dia., bears, N. 60° 36' W., 23 lks. dist.,
marked S C $\frac{1}{4}$ S 35 BT.

No trace can be found of the old standard, $\frac{1}{4}$ sec. cor.
79.70 Top of ledges, 100 ft. high, bear, N. and S. Abrupt descent.
Difference between measurement of 80.00chs. by two sets
of chainmen is 12 lks.; position of middle point

By 1st. set, 79.94chs.
By 2nd. set, 80.06chs.; the mean of which is
80.00 Set an iron post 3ft. long 3 ins. dia., 24 ins. in the ground
for re-established standard cor. of secs. 35 and 36,
marked on brass cap,
T 35 S S 35 in NW. and
R 25 E S 36 in NE. quadrant; from which
A pinyon 9 ins. dia., bears, N. 49° 33' E., 107 lks. dist.,
marked T 35 S R 25 E S 36 BT.
A pinyon 10 ins. dia., bears, N. 0° 05' W., 51 lks. dist.,
marked T 35 S R 25 E S 35 BT.

After diligent search no trace can be found of the old
standard sec. cor.
Land, mountainous.
Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Mountainous land covered with dense timber on 80.00chs.

August 3, 1911.

August 4: At 8h. 06m., a.m., l.m.t., I set off 37° 43' N. on
the lat. arc, 17° 28' N. on the decl. arc, and at the standard
cor. of secs. 35 and 36, determine a meridian with the solar.

Resurvey Seventh Standard Parallel South, Through Range 25 East.

CHAINS

- Thence I run
 East resurveying on S. bdy. of sec. 36.
 Abrupt descent over sandstone ledges, through heavy timber.
- 6.95 Ravine, 50ft. deep, 200ft. wide, in the bottom of Coal Bed
 Canon, drains S.
 Abrupt ascent over sandstone ledges.
- 14.26 Top of ledges, 150ft. high, bear, N. and S.
 Gradual ascent.
- 17.50 Top of spur, projects 4chs. S.
 Descend.
- 20.21 Top of sandstone ledges, 150ft. high, bear NE. and SW.
 Abrupt descent.
- 22.10 Ravine, 30ft. deep. 100ft. wide, drains SW.; East Fork
 of Coal Bed Canyon. Abrupt ascent over ledges.
- 25.40 Top of ledges, 150ft. high, bear, NE. and SW.
 Gradual ascent.
 Difference between measurement of 40.00chs. by two sets
 of chainmen is 10 lks.; position of middle point
 By 1st, set, 39.95chs.
 By 2nd. set, 40.05chs.; the mean of which is
- 40.00 Set an iron post 3ft. long, 1in. dia., 26ins. in the ground
 for re-established standard $\frac{1}{4}$ sec. cor., marked on brass
 cap, $\frac{1}{4}$ S 36 in N. half; from which
 A cedar 7ins. dia., bears, N. 80° 20' E., 203 lks. dist.,
 marked S C $\frac{1}{4}$ S 36 BT.
 A pinyon 8ins. dia., bears, N. 13° 02' W., 44 lks. dist.,
 marked S C $\frac{1}{4}$ S 36 BT.
 After diligent search no trace can be found of the old
 standard $\frac{1}{4}$ sec. cor.
 Difference between measurement of 80.00chs. by two sets
 of chainmen is 14 lks.; position of middle point
 By 1st, set, 79.93chs.
 By 2nd. set, 80.07chs.; the mean of which is
- 80.00 Set an iron post 3ft. long, 3ins. dia., 24ins. in the ground
 for re-established standard cor, of Tps. 35 S., Rs. 25

and 26 E., marked on brass cap, T 35 S in N. half,

R 25 E S 36 in NW. and

R 26 E S 31 in NE. quadrant; from which

A cedar 12 ins. dia., bears, N. 20° 15' E., 67 lks. dist.,
marked T 35 S R 26 E S 31 BT.

A cedar 10 ins. dia., bears, N. 39° 35' W., 29 lks. dist.,
marked T 35 S R 25 E S 36 BT.

After diligent search no trace can be found of the old
standard cor. of Tps. 35 S., Rs. 25 and 26 E.

Land, mountainous.

Soil, sandy loam, loose rock and sandstone ledges, 4th.
rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land covered with dense timber on 80.00chs.

August 4: At 0h.06m., p.m., l.m.t., I set off 17° 25' N. on
the decl. arc and at the above cor., observe the sun on the
meridian, the resulting lat. is 37° 43' N.

August 4, 1911.

McKin W. Geist
U.S. Transitman.

For general description see subdivision of T. 35 S., R. 25 E.

FINAL OATH OF UNITED STATES SURVEYOR

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ leaving date of the _____ day of _____, 191____, I have well, faithfully, and in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of transition see book "21" T. 32 S. R. 20 E.

_____ of the _____ Meridian, in the State of _____, which are represented the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____ and sworn to before me }
this _____ day of _____, 191____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 19, 1914

The foregoing field notes of the survey of _____ re _____ the Seventh Standard Parallel South through Range No. 25 East of the Salt Lake Base and Meridian, Utah, _____

executed by _____ Melvin D. Hoist _____
under his special instructions dated _____ May 22 _____ 1911, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

[Signature]
U. S. Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys is _____ has been correctly copied from the original notes on file in this office.

U. S. Surveyor General

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FILED
FEB 10 1912

"I"
BOOK A-394

E.W.

[Handwritten signature]

E.W.

FIELD NOTES

RESURVEY
OF THE SURVEY OF THE

NORTH and EAST BOUNDARIES

of

TOWNSHIP 35 SOUTH, RANGE 25 EAST.

Of the SALT LAKE BASE and Meridian,

in the State of UTAH.

EXECUTED BY

Melvin D. Heist and Eben B. Andrews.

Transitmen

in the capacity of U. S. Surveyor, under instructions dated May 22, 1911,

issued by the United States Surveyor General to govern surveys included in

Group No. 12, which were approved by the Commissioner of the General Land

Office, June 17, 1911, pursuant to authority contained in the Act of

Congress dated 1911.

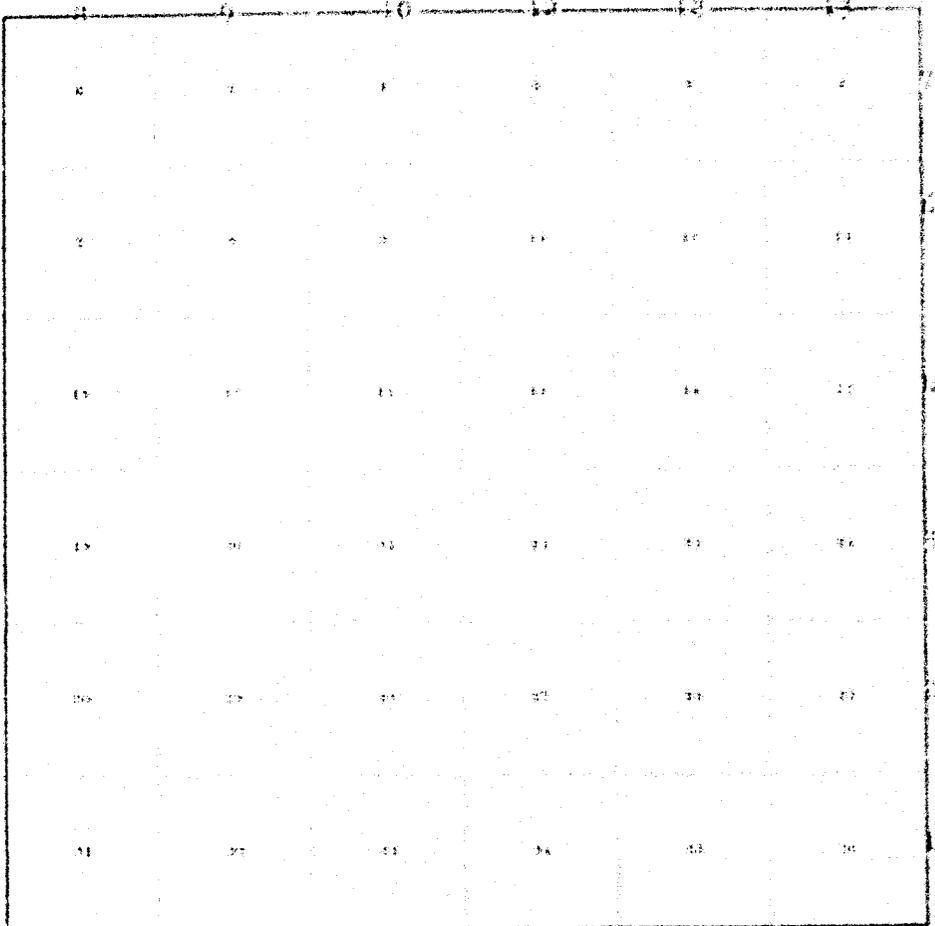
Survey commenced August 4, 1911.

Survey completed August 9, 1911.

See E.W. 5-77-89
See " 5-77-72

INDEX DIAGRAM.

Township 39 South Range 20 West.



Resurvey of the East Boundary of T.35 S., R.25 E.

- Chains. Survey commenced August 4, 1911, and executed with the instrument described in book "D" of this survey.
- Believing the instrument to be in adjustment, from recent observations made at the St.cor.of Tp.35 S., Rs. 24 and 25 E., on July 31 and Aug.1, 1911, and recorded in book "H" of this survey I omit test at this time.
- As no trace of the old stand.corners on the Seventh Standard Par.S., through Rs.23,24, and 25 E. could be found, and believing that no corners exist along the E.bdy.of this Tp., I resurvey the line as follows:
- From the re-established St.cor.of Tp.35 S., Rs.25 and 26 E., heretofore described, I run
- North, resurveying bet.secs.31 and 36,
- Descend over mountainous land; through heavy timber.
- 35.20 Ravine , 45 ft.deep, 150 ft.wide, drains SW., East Fork of Coal Bed Canyon. Ascend.
- 40.00 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for re-established $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 36 in W.half, and S 31 in E.half;from which
- A cedar 10 ins.dia.bears S.86° 58'E.31 lks.dist. marked $\frac{1}{4}$ S 31 B T
- A pinyon 6 ins.dia.bears N.80° 02'W.15 lks.dist. marked $\frac{1}{4}$ S 36 B T
- After diligent search find no trace of the old $\frac{1}{4}$ sec.cor.
- 50.20 Begin abrupt ascent over sandstone ledges.
- 57.55 Top of ledges,250 ft.high bear NE. and SW.
- Thence over rolling mesa.
- 80.00 Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in the ground,for re-established cor.of secs.25,30,31 and 36, marked on brass cap T 35 S in N.half,
- R 25 E S 25 in NW.
R 26 E S 30 in NE.
S 31 in SE.; and
S 36 in SW.quadrants; from which

Resurvey of the East Boundary of T.35 S., R.25 E.

Chains.

- A cedar 10 ins.dia.bears N.33° 16'E. 44 lks.dist.
marked T 35 S R 26 E S 30 B T
- A cedar 14 ins.dia.bears S.73° 34'E.36 lks.dist.
marked T 35 S R 26 E S 31 B T
- A pinon 4 ins.dia.bears S.29°42'W.34 lks.dist.
marked T 35 S R 25 E S 36 B T
- A pinon 9 ins.dia.bears N.66° 02'W. 56 lks.dist.
marked T 35 S R 25 E S 25 B T

After diligent search no trace can be found of the old cor. of secs.25,30,31, and 36.

Land, mountainous and rolling.

Soil, sandy loam on mesa, 2nd rate; balance sandstone ledges and loose rock; 4th rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land or densely timbered land on 80.00 chs.

August 4, 1911.

August 5: At 8h 06m a.m.l.m.t., I set off 37°44'N.on the lat.arc; 17°12'N.on the decl.arc; and determine a meridian with the solar at the cor.of secs.25,30,31, and 36. Thence I run

North resurveying bet.secs.25 and 30.

Over rolling mesa; through heavy timber.

40.00

Set an iron post 3 ft.long, 1 in.in dia.,26 ins.in the ground, for re-established $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 25 in W.half, and S 30 in E.half; from which

- A cedar 9 ins.dia.bears S.70°52'E.42 lks.dist.
mkd. $\frac{1}{4}$ S 30 B T
- A pinon 6 ins.dia.bears S.40°50'W.31 lks.dist.
mkd. $\frac{1}{4}$ S 25 B T

After diligent search find no trace of old $\frac{1}{4}$ sec.cor.

80.00

Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in the ground, for re-established cor.of secs.19,24,25, and 30, marked on brass cap T 35 S in N.half,
R 25 E S 24 in NW.
R 26 E S 19 in NE.

Resurvey of the East boundary of T. 35 S., R. 25 E.

CHAINS

S 30 in SE. and

S 25 in SW. quadrant; from which

A cedar 5 ins. dia., bears, N. 81° 56' E., 25 lks. dist.,
marked T 35 S R 26 E S 19 BT.

A cedar 4 ins. dia., bears, S. 45° 50' E., 21 lks. dist.,
marked T 35 S R 26 E S 30 BT.

A pinyon 6 ins. dia., bears, S. 79° 25' W., 37 lks. dist.,
marked T 35 S R 25 E S 25 BT.

A cedar 12 ins. dia., bears, N. 28° 36' W., 24 lks. dist.,
marked T 35 S R 25 E S 24 BT.

After diligent search no trace can be found of the old
cor. of secs. 19-24-25 and 30.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Densely timbered land on 80.00 chs.

August 5: At 0h.06m., p.m., l.m.t., I set off 17° 09' N' on
the decl. arc, and at the above cor., observe the sun on the
meridian, the resulting lat. is 37° 45' N.

Thence I run

North, resurveying bet. secs. 19 and 24.

Over rolling mesa, through heavy timber.

18.00 Top of sandstone ledges, 150 ft. high, bear, NE. and SW.
Abrupt descent.

24.80 Foot of ledges,
Gradual descent.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground
for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S
24 in W. half and S 19 in E. half; from which

A cedar 20 ins. dia., bears, N. 75° 33' E., 10 lks. dist.,
marked $\frac{1}{4}$ S 19 BT.

A cedar 12 ins. dia., bears, N. 64° 25' W., 18 lks. dist.,
marked $\frac{1}{4}$ S 24 BT.

Resurvey of the East boundary of T. 35 S., R. 25 E.

CHAINS

(After diligent search no trace can be found of the old
 1/4 sec. cor.

80.00 Set an iron post 3ft. long, 3ins. dia., 2 1/2 ins. in the ground
 for re-established cor. of secs. 13-18-19 and 24. marked
 on brass cap, T 35 S in N. half,

R 25 E S 13 in NW.

R 26 E S 18 in NE.

S 19 in SE. and

S 24 in SW. quadrant; from which

A cedar 16ins. dia., bears, N. 61° 05' E., 53 lks. dist.,
 marked T 35 S R 26 E S 18 BT.

A pinyon 18ins. dia., bears, S. 69° 35' E., 74 lks. dist.,
 marked T 35 S R 26 E S 19 BT.

A pinyon 12ins. dia., bears, S. 48° 35' W., 15 lks. dist.,
 marked T 35 S R 25 E S 24 BT.

A cedar 15ins. dia., bears, N. 22° 10' W., 48 lks. dist.,
 marked T 35 S R 25 E S 13 BT.

After diligent search no trace can be found of the old
 cor. of secs. 13-18-19 and 24.

Land, rolling and mountainous.

Soil, sandy loam on mesa, 1st. rate, balance sandy loam,
 loose rock and sandstone ledges 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land or densely timbered land on 80.00chs.

Thence I run

North, resurveying bet, secs. 13 and 18.

Descend over mountainous land, through heavy timber.

5.50 Top of sandstone ledges, 100ft. high, bear, NE. and SW.
 Abrupt descent.

23.90 Ravine, 30ft. deep, 150ft. wide, in the bottom of Coal Bed
 Canon, drains, SW.

Abrupt ascent over sandstone ledges.

32.00 Top of ledges, 100ft. high, bear, NE. and SW.

Resurvey of the East boundary of T. 35 S., R. 25 E.

CHAINS

Gradual ascent.

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 13 in W. half and S 18 in E. half; from which

A pinyon 12 ins. dia., bears, S. $42^{\circ}06'E.$, 45 lks. dist., marked $\frac{1}{4}$ S 18 BT.

A cedar 14 ins. dia., bears, N. $66^{\circ}02'W.$, 58 lks. dist., marked $\frac{1}{4}$ S 13 BT.

After diligent search no trace can be found of the old $\frac{1}{4}$ sec. cor.

August 5, 1911.

August 7: At 8h.06m., a.m., l.m.t., I set off $37^{\circ}46'N.$ on the lat. arc, $16^{\circ}39'N.$ on the decl. arc, and at the above $\frac{1}{4}$ sec. cor., determine a meridian with the solar.

70.90 Ravine, 25ft, deep, 80ft. wide, drains, SE.

80.00 Set an iron post 3ft. long, 3 ins. dia., 24 ins. in the ground for re-established cor. of secs. 7-12-13 and 18, marked on brass cap, T 35 S in N. half,

R 25 E S 12 in NW.

R 26 E S 7 in NE.

S 18 in SE. and

S 13 in SW. quadrant; from which

A pinyon 8 ins. dia., bears, N. $19^{\circ}50'E.$, 33 lks. dist., marked T 35 S R 26 E S 7 BT.

A pinyon 8 ins. dia., bears, S. $14^{\circ}37'E.$, 34 lks. dist., marked T 35 S R 26 E S 18 BT.

A pinyon 14 ins. dia., bears, S. $14^{\circ}05'W.$, 31 lks. dist., marked T 35 S R 25 E S 13 BT.

A cedar 7 ins. dia., bears, N. $55^{\circ}18'W.$, 23 lks. dist., marked T 35 S R 25 E S 12 BT.

After diligent search no trace can be found of the old cor. of secs. 7-12-13 and 18.

Land, mountainous.

Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.

Subsoil, sandstone.

CHAINS

Timber, cedar and pinyon.

Mountainous, densely timbered land on 80.00chs.

Thence I run

North, resurveying bet. secs. 7 and 12.

Ascent over mountainous land, through heavy timber.

- 2.40 Begin abrupt ascent over sandstone ledges.
13.43 Top of ledges, 200ft. high, bear, E. and W.
Gradual ascent over mesa.
30.00 Ravine, 25ft. deep, 100ft. wide, drains SW.
40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground
for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S
12 in W. half and S 7 in E. half; from which
A cedar 6ins. dia., bears, N. 47°50'E., 7 lks. dist.,
marked $\frac{1}{4}$ S 7 BT.
A pinyon 4ins. dia., bears, N. 77°52'W., 47 lks. dist.,
marked $\frac{1}{4}$ S 12 BT.

After diligent search no trace can be found of the old
 $\frac{1}{4}$ sec. cor.

- 46.20 Leave timber, bears, NW. and SE., enter dense undergrowth.
60.00 Set an iron post 3ft. long, 3ins. dia., 24ins. in the ground
for re-established cor. of secs. 1-6-7 and 12, marked on
brass cap, T 35 S in N. half,
R 25 E S 1 in NW.
R 26 E S 6 in NE.
S 7 in SE. and
S 12 in SW. quadrant; dig pits 18x18x12 ins. in each
sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth 4ft. base,
2ft. high N. of cor.

After diligent search no trace can be found of the old
cor. of secs. 1-6-7 and 12.

Land, mountainous and rolling.

Soil, sandstone ledges on first 14.00chs., 4th. rate, balance
sandy loam and loose rock, 2nd. rate.

Subsoil, sandstone.

Resurvey of the East. Boundary of T.35 S., R.25 E.

Chains. Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, densely timbered land, or land covered with dense undergrowth on 80.00 chs.

August 7: At 0 h 06m p.m.l.m.t., I set off $16^{\circ} 36'N$. on the decl. arc; and at the cor. of secs. 1, 6, 7 and 12, observe the sun on the meridian, the resulting lat. is $37^{\circ} 48'N$. Thence I run

North, resurveying bet. secs. 1 and 6,

Over rolling mesa; through dense undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for re-established $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 1 in W. half, and S 6 in E. half; dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

After diligent search find no trace of old $\frac{1}{4}$ sec. cor.

79.82 Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established cor. of Tps. 34 and 35 S., Rs. 25. and 26 E., marked on brass cap T 34 S in N. half,

T 35 S in S. half,

R 25 E S 36 in NW.

R 26 E S 31 in NE.

R 26 E S 6 in SE.; and

R 25 E S 1 in SW. quadrants; dig pits 24 x 24 x 12 ins. on each line, N., E., and W. 4 ft. dist.; and S. of post 8 ft. dist.; and raise a mound of earth $5\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high S. of cor.

From this cor. the old cor., a decayed cedar post, bears S. $60^{\circ} 40' E$. 276 lks. I destroy all trace of the old cor. Land, rolling.

Soil, sandy loam; 1st rate. Subsoil, sandstone

No timber.

Undergrowth, sagebrush.

Resurvey of the North Boundary of T.35 S., R.25 E.

Chains.

Land covered with dense undergrowth on 80.00 chs.

From the re-established cor. of Tps. 34 and 35 S., Rs. 25 and 26 E. above described, I run S. 89° 55' W. on a retracement line along N. bdy. of sec. 1; at 40.00 chs. make diligent search but find no trace of the $\frac{1}{4}$ sec. cor.; at 80.00 chs. after diligent search find no trace of the old sec. cor.; I continue my line but fail to find any of the old corners, until at 477.72 chs. I intersect the W. Bdy. of the Tp. 97 lks. S. of the cor. of Tps. 34 and 35 S., Rs. 24 and 25 E., which is a sandstone 12 x 14 x 6 ins. above ground, marked and witnessed as described by the surveyor general. The course of this line is therefore S. 89° 58' E.

There being no subdivisions dependent upon this line, I resurvey as follows: Aug. 8, 1911.

Aug. 9: At 8h 05m a.m. l.m.t., I set off 37° 49' N. on the lat. arc; 16° 05' N. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 34 and 35 S. Rs. 24 and 25 E. Thence I run

S. 89° 58' E. resurveying bet. secs. 6 and 31, Over rolling mesa; through dense undergrowth.

- 37.72 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for re-established $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S. 31 in N. half, and S 6 in S. half; dig pits 18 x 18 x 12 ins. E. and W. of post 3 ft. dist.; and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high N. of cor. After diligent search find no trace of old $\frac{1}{4}$ sec. cor.
- 63.00 Top of sandstone ledges, 150 ft. high; bear. NE. and SW. Abrupt descent.
- 69.50 Foot of ledges. Leave dense undergrowth; enter heavy timber, bears NE. and SW. Gradual descent.
- 77.72 Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the gro

Resurvey of the North boundary of T. 35 S., R. 25 E.

CHAINS

for re-established cor. of secs. 5-6-31 and 32, marked on brass cap,

T 34 S S 31 in NW.

R 25 E S 32 in NE.

R 25 E S 5 in SE. and

T 35 S S 6 in SW. quadrant; from which

A cedar 13 ins. dia., bears, N. 18° 27' E., 86 lks. dist., marked T 34 S R 25 E S 32 BT.

A cedar 6 ins. dia., bears, S. 28° 32' E., 33 lks. dist., marked T 35 S R 25 E S 5 BT.

A pinyon 14 ins. dia., bears, S. 42° 30' W., 92 lks. dist., marked T 35 S R 25 E S 6 BT.

A pinyon 10 ins. dia., bears, N. 65° 00' W., 87 lks. dist., marked T 34 S R 25 E S 31 BT.

After diligent search no trace can be found of the old sec. cor.

Land, mountainous and rolling.

Soil, sandy loam on mesa, 1st. rate, balance sandstone ledges. sandy loam and loose rock, 4th. rate.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, densely timbered land or land covered with dense undergrowth on 80.00 chs.

Thence I run

S. 89° 58' E., resurveying bet. secs. 5 and 32.

Descend over mountainous land, through heavy timber.

30.50 Ravine, 30 ft. deep, 100 ft. wide. in the bottom of Pearsons Canon, drains, SW.

Ascend.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 32 in N. half and S 5 in S. half; from which

A pinyon 12 ins. dia., bears, N. 28° 30' W., 30 lks. dist., marked $\frac{1}{4}$ S 32 BT.

CHAINS

A pinyon 8ins.dia., bears, S.75°04'W., 36 lks. dist.,
marked $\frac{1}{4}$ S 5 BT.

After diligent search no trace can be found of the old
 $\frac{1}{4}$ sec. cor.

50.50 Begin abrupt ascent over sandstone ledges.

52.30 Top of ledges, 200ft. high, bear, NE. and SW.
Gradual ascent.

58.00 Top of spur, projects 7chs. N.
Descend.

80.00 Set an iron post 3ft. long, 3ins.dia., 24ins. in the ground
for re-established cor. of secs. 4-5-32 and 33, marked
on brass cap,

T 34 S S 32 in NW.

R 25 E S 33 in NE.

R 25 E S 4 in SE. and

T 35 S S 5 in SW. quadrant; from which

A cedar 7ins.dia., bears, N.42°35'E., 54 lks. dist.,
marked T 34 S R 25 E S 33 BT.

A cedar 15ins.dia., bears, S.15°45'E., 33 lks. dist.,
marked T 35 S R 25 E S 4 BT.

A cedar 7ins.dia., bears, S.73°50'W., 58 lks. dist.,
marked T 35 S R 25 E S 5 BT.

A cedar 10ins.dia., bears, N.4°50'W., 93 lks. dist.,
marked T 34 S R 25 E S 32 BT.

After diligent search no trace can be found of the old
sec. cor.

Land, mountainous.

Soil, sandstone ledges, sandy loam and loose rock, 4th. r
rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous, densely timbered land on 80.00chs.

Thence I run

S.89°58'E., resurveying bet. secs. 4 and 33.

Descend over mountainous land, through heavy timber.

Resurvey of the North boundary of T. 35 S., R. 25 E.

CHAINS

- 4.20 Ravine, 50ft, deep, 200ft. wide, chains NW.
Ascend.
- 35.00 Leave heavy timber, bears, N. and S. Enter scattering timber and dense undergrowth.
- 40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 33 in N. half and S $\frac{1}{4}$ in S. half; from which
A cedar 9 ins. dia., bears, N. 27° 22' E., 228 lks. dist., marked $\frac{1}{4}$ S 33 BT.
A pinyon 8 ins. dia., bears, S. 62° 55' W., 241 lks. dist., marked $\frac{1}{4}$ S $\frac{1}{4}$ BT.
- After diligent search no trace can be found of the old $\frac{1}{4}$ sec. cor.
- 46.00 Leave scattering timber. Thence over rolling mesa, through dense undergrowth.
- 80.00 Set an iron post 3ft. long, 3 ins. dia., 24 ins. in the ground for re-established cor. of secs. 3-4-33 and 34, marked on brass cap,
T 34 S S 33 in NW.
R 25 E S 34 in NE.
R 25 E S 3 in SE. and
T 35 S S 4 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist.; and raise a mound of earth 4ft. base, 2ft. high W. of cor.
- After diligent search no trace can be found of the old sec. cor.
- Land mountainous and rolling.
Soil, sandy loam and loose rock, 2nd. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Undergrowth, sagebrush.
Mountainous land, densely timbered land or land covered with dense undergrowth on 80.00chs.
-

CHAINS

August 9: At 10h.05m., p.m., l.m.t., I set off $16^{\circ}02'N$. on the decl. arc, and at the cor. of secs. 3-4-33 and 34, observe the sun on the meridian, the resulting lat. is $37^{\circ}49'N$.

Thence I run

S. $89^{\circ}58'E$., resurveying bet. secs. 3 and 34.

Over rolling mesa, through dense undergrowth.

30.40 Hollow, 5ft. deep, drains SW.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 34 in N. half and S 3 in S. half; dig pits 18x18x12 ins., E. and W. of post, 3ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

After diligent search no trace can be found of the old $\frac{1}{4}$ sec. cor.

80.00 Set an iron post 3ft. long, 3ins. dia., 24ins. in the ground for re-established cor. of secs. 2-3-34 and 35, marked on brass cap,

T 34 S S 34 in NW.

R 25 E S 35 in NE.

R 25 E S 2 in SE. and

T 35 S S 3 in SW. quadrant; dig pits 18x18x12 ins. in each sec., $5\frac{1}{2}$ ft. dist; and raise a mound of earth 4ft. base 2ft. high, W. of cor.

After diligent search no trace can be found of the old sec. cor.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

No timber.

Undergrowth, sagebrush.

Land covered with dense undergrowth on 80.00chs.

Thence I run

S. $89^{\circ}58'E$., resurveying bet. secs. 2 and 35.

Over rolling mesa, through dense undergrowth.

CHAINS

- 16.80 Wire fence, bears, N. and S.
- 20.00 Hollow, 100ft. deep, drains, S. into Horsehead Canon.
- 24.50 Enter scattering timber.
- 40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 35 in N. half and S 2 in S. half; from which
- A cedar 6ins. dia., bears, N. $12^{\circ}06'E.$, 145 lks. dist., marked $\frac{1}{4}$ S 35 BT.
- A pinyon 7ins. dia., bears, S. $63^{\circ}07'E.$, 233 lks. dist., marked $\frac{1}{4}$ S 2 BT.
- After diligent search no trace can be found of the old $\frac{1}{4}$ sec. cor.
- 71.00 Leave scattering timber.
- 75.50 Hollow, 150ft. deep, drains S.
- 80.00 Set an iron post 3ft. long, 3ins. dia., 24ins. in the ground for re-established cor. of secs. 1-2-35 and 36, marked on brass cap,
- T 34 S S 35 in NW.
- R 25 E S 36 in NE.
- R 25 E S 1 in SE. and
- T 35 S S 2 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist.; and raise a mound of earth 4ft. base, 2ft. high W. of cor.
- After diligent search no trace can be found of the old sec. cor.
- Land, rolling.
- Soil, sandy loam and loose rock, 2nd, rate.
- Subsoil, sandstone.
- Timber, cedar and pinyon.
- Undergrowth, sagebrush.
- Land covered with scattering timber or land covered with dense undergrowth on 80.00chs.

Thence I run

Resurvey of the North boundary of T. 35 S., R. 25 E.

CHAINS

S. 89° 58' E., resurveying bet. secs. 1 and 36.

Over rolling land, through dense undergrowth.

27.28 Hollow, 150ft. deep, drains SW.

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 36 in N. half and S 1 in S. half; dig pits 18x18x12 ins. E. and W., 3ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

After diligent search no trace can be found of the old $\frac{1}{4}$ sec. cor.

60.00 Enter scattering timber.

67.50 Leave scattering timber.

80.00 The cor. of Tps. 34 and 35 S., Rs. 25 and 26 E.

Land rolling.

Soil, sandy loam and loose rock, 2nd. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with scattering timber or land covered with dense undergrowth on 80.00chs.

August 9, 1911.

Eben B. Andrews
U.S. Transitman.

For general description see Subdivision of T. 35 S., R. 25 E.

RESURVEY OF T. 35 S., R. 25 E.

BY EBEN B. ANDREWS, U.S. TRANSITMAN.

Boundaries of T.35 S., R.25 E.

Latitudes, Departures, and Closing Errors.

Line Designated	True Bearing	Distance	Latitudes		Departures	
			N.	S.	E.	W.
		Chs.	Chs.	Chs.	Chs.	Chs.
West bdy.	S.0°13'W.	479.94	479.94	479.94		1.82
South bdy.	East	480.00			480.00	
East bdy.	North	479.89	479.89			
North bdy.	N.89°58'W.	477.72	.28			477.72
Convergency						.96
	Totals,		480.17	479.94	480.00	480.10
			479.94			480.00
	Error in lat.		.23	Error in dep.		.10

Oliver B. Andrews

Melvin H. Hiest
U.S. Transitter.

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FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191____, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of transitman see book "Z" T. 32 S. R. 26 E.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191____



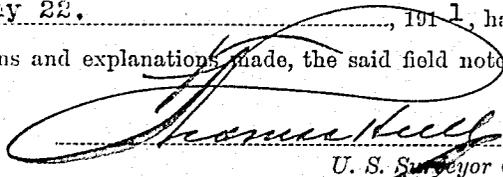
APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah. March 19____, 191____

The foregoing field notes of the ^{re} survey of the North and East boundaries of Township No. 35 South, Range No. 25 East of the Salt Lake Base and Meridian, Utah,

executed by Eben B. Andrew under his special instructions dated May 22, 191____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.


U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

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BOOK A-394
"J"

FILED
FEB 10 1919
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FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION OF T. 35 S., R. 25 E.

Of the SALT LAKE BASE and Meridian,

the State of UTAH.

EXECUTED BY

Melvin D. Hoist and Eben B. Andrews.

Transitron

the capacity of U. S. ~~SURVEYORS~~, under instructions dated May 22, 1911,

by the United States Surveyor General to govern surveys included in

map No. 12, which were approved by the Commissioner of the General Land

Office, June 17, 1911, pursuant to authority contained in the Act of

Congress dated 1911

Survey commenced August 5, 1911

Survey completed August 23, 1911

INDEX DIAGRAM.

Township 35 SOUTH, Range 25 EAST.

6	59	5	44	4	34	3	23	2	13	1
58		57		43		32		22		12
7	56	8	42	9	31	10	21	11	11	12
55		55		42		30		20		11
18	54	17	41	16	29	15	19	14	10	13
53		52		40		29		19		9
19	51	20	39	31	28	22	18	23	7	24
50		49		38		27		17		5
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47		46		36		25		15		3
31	45	32	35	33	24	34	14	35	2	36

Survey commenced August 4, 1911, and executed with the instrument described in book "A" of this survey.

I begin at the re-established standard cor. of secs. 35 and 36, heretofore described, in approximate lat. $37^{\circ}43'N.$ long. $109^{\circ}10'34''W.$

I examine the adjustments of the transit and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, I proceed as follows:

At 4h.06m., p.m., l.m.t., I set off $37^{\circ}43'N.$ on the lat. arc, $17^{\circ}22'N.$ on the decl. arc, and determine with the solar a meridian and mark the point thereof, on a stone firmly set in the ground 5chs. N. of the cor.

At 10h.42m., p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with instructions in the Manual and mark a point in the line thus determined on a peg driven in the ground 5chs. N. of the cor.

August 4, 1911.

August 5: At 7a.m., I lay off the azimuth of Polaris $1^{\circ}28'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.3 ins. east of the mark determined by the solar.

At 8h.06m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on the lat. arc, $17^{\circ}12'N.$ on the decl. arc, and mark the meridian thus determined, by a cross on the stone already set 5chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observations.

The solar apparatus, by a.m. and p.m. observations, defines positions for the meridian, about $0'16''$ west and $0'16''$ east, respectively, of the meridian established by Polaris observation.; therefore I conclude that the adjustments of the instrument are satisfactory.

CHAINS

The magnetic bearing of the meridian at 8h.a.m., is N.15°35'W., the angle thus determined gives the mag. decl. 15°35'E.

From the re-established standard cor. of secs. 35 and 36, heretofore described,

I run

N.0°01'W., bet. secs. 35 and 36.

Ascend over mountainous land, along west rim of Coal Bed Canon, through heavy timber.

- 18.10 Top of spur, projects 2chs. E.
Descend.
- 24.40 Ravine, 150ft. deep, 300ft. wide, drains E.
Ascend.
- 36.60 Top of spur, projects E. 1.50chs.
Descend.
- 40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 35 in W. half and S 36 in E. half; from which
 - A pinyon 6ins. dia., bears, N.50°10'E., 17 lks. dist., marked $\frac{1}{4}$ S 36 BT.
 - A pinyon 5ins. dia., bears, N.21°05'W., 21 lks. dist., marked $\frac{1}{4}$ S 35 BT.
- 42.08 Ravine, 150ft. deep, 250 ft. wide, drains E.
Ascend.
- 80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 25-26-35 and 36, marked on brass cap,
 - T 35 S S 26 in NW.
 - R 25 E S 25 in NE.
 - S 36 in SE. and
 - S 35 in SW. quadrant; from which
 - A cedar 6ins. dia., bears, N.30°12'E., 33 lks. dist., marked T 35 S R 25 E S 25 BT.
 - A pinyon 9ins. dia., bears, S.8°18'E., 89 lks. dist., marked T 35 S R 25 E S 36 BT.
 - A pinyon 5ins. dia., bears, S.16°29'W., 50 lks. dist., marked T 35 S R 25 E S 35 BT.

CHAINS

A pinyon 6ins. dia., bears, N. 41° 04' W., 17 lks. dist.,
marked T 35 S R 25 E S 26 BT.

Land, mountainous.

Soil, sandstone ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous, densely timbered land on 80.00chs.

August 5: At 10h. 06m., p.m., l.m.t., I set off 17° 09' N. on
the decl. arc, and at the cor. of secs. 25-26-35 and 36,
observe the sun on the meridian, the resulting lat. is
37° 44' N.

Thence I run

East on random line bet. secs. 25 and 36.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.12 Intersect E bdy. of Tp. 3 lks. N. of the re-established
cor. of secs. 25-30-31 and 36, heretofore described.

Thence I run

N. 89° 59' W. on true line bet. secs. 25 and 36.

Descend over mesa, through heavy timber.

3.60 Top of sandstone ledges, 200ft. high, bear NW. and SE.

Abrupt descent.

6.04 Foot of ledges.

Gradual descent.

40.06 Set an iron post 3ft. long, 1 in. dia., 26ins in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 25 in N. half,
and S 36 in S. half; from which

A cedar 9ins. dia., bears N. 54° 11' W., 30 lks. dist.,
marked $\frac{1}{4}$ S 25 BT.

A cedar 8ins. dia., bears S. 44° 15' E., 17 lks. dist.,
marked $\frac{1}{4}$ S 36 BT.

49.08 Top of ledges, 200ft. high, bear N. and S.

Abrupt descent.

62.02 Ravine, 30ft. deep, 100ft. wide, in the bottom of Coal Bed
Canon, drains S.

CHAINS

Abrupt ascent over ledges.

67.88 Top of sandstone ledges, 200ft. high. bear N. and S.
Gradual ascent.

80.12 The cor. of secs. 25-26-35 and 36.
Land, mountainous.
Soil, sandstone ledges and loose rock, 4th. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Mountainous land covered with dense timber on 80.12chs.

August 5, 1911.

August 8: At 8h.06m., a.m., l.m.t., I set off $37^{\circ}44'N.$ on the lat. arc, $16^{\circ}22'N.$ on the decl. arc, and at the cor. of secs. 25-26-35 and 36, determine a meridian with the solar.

Thence I run

N. $0^{\circ}01'W.$, bet, secs. 25 and 26.

Ascend over mountainous land, through heavy timber.

16.12 Ravine, 45ft. deep, 100ft. wide, drains SE.

23.88 Top of spur, projects 8chs. E.

Descend.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 26 in W. half, and S 25 in E. half; from which

A cedar 9ins. dia., bears, S. $46^{\circ}28'E.$, 22 lks. dist., marked $\frac{1}{4}$ S 25 BT.

A cedar 5ins. dia., bears, S. $29^{\circ}24'W.$, 21 lks. dist., marked $\frac{1}{4}$ S 26 BT.

55.70 Ravine, 100ft. deep, 200ft. wide, drains SE., Coal Bed Canon.

Ascend.

72.81 Top of spur, projects 3chs. E.

Descend.

75.11 Top of sandstone ledges 150ft. high, bear NW. and SE.

Abrupt descent.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 23-24-25 and 26, marked on brass cap,

Subdivision of T. 35 S., R. 25 E.

CHAINS

T 35 S S' 23 in NW.

R 25 E S 24 in NE.

S 25 in SE. and

S 26 in SW. quadrant; from which

A cedar 7ins. dia., bears, S. 38°39'E., 185 lks. dist.,

marked T 35 S R 25 E S 25 BT.

A pinyon 8ins. dia., bears, S. 49°52'W., 123 lks. dist.,

marked T 35 S R 25 E S 26 BT.

A pinyon 10ins. dia., bears, N. 62°32'W., 122 lks. dist.,

marked T 35 S R 25 E S 23 BT.

No other tree within limits; dig pits 18x18x12 ins. in each sec. 5½ ft. dist; and raise a mound of earth 4ft. base, 2ft. high W. of cor.

Land, mountainous.

Soil, sandstone ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous, densely timbered land on 80.00chs.

S. 89°59'E. on random line bet. secs. 24 and 25.

40.00 Set temp. ¼ sec. cor.

79.86 Intersect W. bdy. of Tp. 25 lks. S. of the re-established cor. of secs. 19-24-25 and 30, heretofore described.

Thence I run

S. 89°50'W., on true line bet, secs. 24 and 25.

Over rolling mesa, through heavy timber.

26.80 Top of sandstone ledges, 200ft. high, bear N. and S.

Abrupt descent.

32.36 Foot of ledges.

Gradual descent.

39.93 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for ¼ sec. cor., marked on brass cap, ¼ S' 24 in N. half, and S 25 in S. half; from which

A cedar 14ins. dia., bears, N. 65°02'E., 53 lks. dist.,

marked ¼ S 24 BT.

CHAINS

A pinyon 8 ins. dia., bears. S. $46^{\circ}38'W.$, 31 lks. dist.,
marked $\frac{1}{4}$ S 25 BT.

August 8: At this $\frac{1}{4}$ sec. cor. I set off $16^{\circ}19'N.$ on the decl. arc, and at 10h.06m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N.$

70.85 Top of sandstone ledges, 150ft. high, bear N. and S.
Abrupt descent.

78.66 Ravine, 35ft. deep. 85 ft. wide, in the bottom of Coal Bed
Canon, drains S.
Ascend.

79.86 The cor. of secs. 23-24-25 and 26.

Land, rolling and mountainous.

Soil, sandy loam on mesa, 1st. rate, balance sandstone
ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land or land covered with dense timber on
79.86chs.

August 8, 1911.

Melvin H. Heist
U.S. Transitman.

Survey commenced August 9, 1911, and executed with the
instrument described in book "D" of this survey.

I begin at the cor. of secs. 23-24-25 and 26, heretofore
described, in approximate lat. $37^{\circ}45'N.$, long. $109^{\circ}10'34''$
W.

I examine the adjustments of the transit and correct the
level and collimation errors; then to test the solar
apparatus, by comparing its indications resulting from
solar observations made during a.m. and p.m. hours, I
proceed as follows:

At 4h.05m., p.m., l.m.t., I set off $37^{\circ}45'N.$ on the
lat. arc, $15^{\circ}59'N.$ on the decl. arc, and determine a meridian
with the solar and mark the point thereof, on a stone
firmly set in the ground 5chs. N. of the cor.

Subdivision of T. 35 S., R. 25 E.

CHAINS

At 10h.22m., p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with instructions in the Manual and mark a point in the line thus determined on a peg driven in the ground 5chs. N. of the cor.

August 9, 1911.

August 10: At 7 a.m., I lay off the azimuth of Polaris, $1^{\circ}29'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.2 ins. east of the mark determined by the solar.

At 8h.05m., a.m., l.m.t., I set off $37^{\circ}45'N.$ on the lat. arc, $15^{\circ}35'N.$ on the decl. arc, and mark the meridian thus determined, by a cross on the stone already set 5chs. N. of my station; this mark falls 0.2 ins. west of the meridian established by the Polaris observation.

The solar apparatus, by a.m. and p.m. observations, defines a position of the meridian, about $0^{\circ}11'W.$ & $0^{\circ}11'E$ respectively of the meridian established by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the meridian at 8h. a.m., is $N.15^{\circ}35'W.$, the angle thus determined gives the mag. decl. $15^{\circ}35'E.$

From the cor. of secs. 23-24-25 and 26, heretofore described, I run

$N.0^{\circ}01'W.$, bet. secs. 23 and 24.

Descend into Coal Bed Canon, through dense timber.

4.00 Ravine, 35ft. deep, 25ft. wide, in the bottom of Coal Bed Canon, drains SE.

Thence along bottom of ravine.

28.22 Leave bottom of ravine. Abrupt ascent over sandstone ledges.

29.28 Top of ledges, 100ft. high, bear NE. and SW.
Gradual ascent.

Subdivision of T. 35 S., R. 25 E.

CHAINS

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 25 in W. half, and S 24 in E. half; from which

A pinyon 6 ins. dia., bears, N. 56° 04' E., 98 lks. dist., marked $\frac{1}{4}$ S 24 BT.

A pinyon 8 ins. dia., bears, S. 23° 25' W., 16 lks. dist., marked $\frac{1}{4}$ S 23 BT.

74.30 Begin abrupt ascent over sandstone ledges.

77.10 Top of ledges, 200 ft. high, bear NE. and SW.

Rolling ascent over mesa,

80.00 Set an iron post 3ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 13-14-23 and 24, marked on brass cap,

T 35 S S 14 in NW.

R 25 E S 13 in NE.

S 24 in SE. and

S 23 in SW. quadrant; from which

A pinyon 12 ins. dia., bears, N. 66° 31' E., 51 lks. dist., marked T 35 S R 25 E S 13 BT.

A pinyon 5 ins. dia., bears, S. 12° 33' E., 88 lks. dist., marked T 35 S R 25 E S 24 BT.

A pinyon 6 ins. dia., bears, S. 58° 50' W., 6 lks. dist., marked T 35 S R 25 E S 23 BT.

A pinyon 6 ins. dia., bears, N. 19° 05' W., 20 lks. dist., marked T 35 S R 25 E S 14 BT.

Land, mountainous and rolling.

Soil, sandy loam and loose rock and sandstone ledges, 4th rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land or land covered with dense timber on 80.00 chs.

Note—The sky was overcast at noon. Latitude observation impossible.

August 10, 1911.

Subdivision of T. 35 S., R. 25 E.

CHAINS

- August 11: At 8h.05m., a.m., l.m.t., I set off $37^{\circ}46'N.$ on the lat. arc, $15^{\circ}31'N.$ on the decl. arc, and at the cor. of secs. 13-14-23 and 24, determine a meridian with the solar. Thence I run $N.89^{\circ}50'E.$, on random line bet. secs. 13 and 24.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.08 Intersect E. bdy. of Tp. 23 lks. N. of the re-established cor. of secs. 13-18-19 and 24, heretofore described. Thence I run West on true line bet. secs. 13 and 24. Descend over mountainous land, through heavy timber.
- 11.41 Top of sandstone ledges, 100ft. high, bear NE. and SW. Abrupt descent.
- 19.40 Ravine, 30ft. deep, 75ft. wide, in the bottom of Coal Bed Canon, drains SW. Abrupt ascent over sandstone ledges.
- 27.50 Top of ledges, 100ft. high, bear NE. and SW. Rolling ascent.
- 36.20 Ravine, 50ft. deep, drains SE.
- 40.04 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 13 in N. half, and S 24 in S. half; from which
 A pinyon 5ins. dia., bears, $N.24^{\circ}27'W.$, 23 lks. dist., marked $\frac{1}{4}$ S 13 BT.
 A pinyon 6ins. dia., bears, $S.54^{\circ}20'W.$, 24 lks. dist., marked $\frac{1}{4}$ S 24 BT.
- 59.00 Begin abrupt ascent over sandstone ledges.
- 75.10 Top of ledges, 200ft. high, bear NE. and SW. Gradual ascent.
- 80.08 The cor. of secs. 13-14-23 and 24. Land, mountainous. Soil, sandy loam loose rock and sandstone ledges, 4th. rate. Subsoil, sandstone. Timber, cedar and pinyon.

CHAINS

Mountainous, heavily timbered land on 80.08chs.

N.0°01'W., bet. secs. 13 and 14.

Over rolling mesa, through heavy timber.

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 14 in W. half, and S 13 in E. half; from which

A pinyon 9 ins. dia., bears, N. 82°30'E., 41 lks. dist., marked $\frac{1}{4}$ S 13 BT.

A pinyon 14 ins. dia., bears, S. 79°40'W., 56 lks. dist., marked $\frac{1}{4}$ S 14 BT.

42.60 Ravine, 60ft, deep, 125ft. wide, drains SE.

80.00 Set an iron post 3ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 11-12-13 and 14, marked on brass cap,
 T 35 S S 11 in NW.
 R 25 E S 12 in NE.
 S 13 in SE. and
 S 14 in SW. quadrant; from which

A pinyon 15 ins. dia., bears, N. 20°32'E., 28 lks. dist., marked T 35 S R 25 E S 12 BT.

A pinyon 8 ins. dia., bears, S. 23°48'E., 35 lks. dist., marked T 35 S R 25 E S 13 BT.

A pinyon 8 ins. dia., bears, S. 24°22'W., 48 lks. dist., marked T 35 S R 25 E S 14 BT.

A cedar 7 ins. dia., bears, N. 52°13'W., 61 lks. dist., marked T 35 S R 25 E S 11 BT.

Land, rolling.

Soil, sandy loam and loose rock, 2nd. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Heavily timbered land on 80.00 chs.

August 11: At 10h.05m., p.m., l.m.t., I set off 15°27'N. on the decl. arc, and at the cor. of secs. 11-12-13 and 14, observe the sun on the meridian, the resulting lat. is 37°47'N.

Subdivision of T. 35 S., R. 25 E.

CHAINS

- East, on random line bet. secs. 12 and 13,
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.00 Intersect E. bdy. of the Tp. 9 lks. N. of the cor. of
secs. 7-12-13 and 18, heretofore described.
- Thence I run
- N. $89^{\circ}56'$ W., on true line bet. secs. 12 and 13.
- 3.00 Ascend over mountainous land, through heavy timber.
Ravine, drains SE.
- 19.20 Begin abrupt ascent over sandstone ledges.
- 20.90 Top of ledges, 175 ft. high, bear N. and S.
- Thence over rolling mesa.
- 40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 12 in N. half,
and S 13 in S. half; from which
- A pinyon 8 ins. dia., bears, N. $47^{\circ}18'$ E., 27 lks. dist.,
marked $\frac{1}{4}$ S 12 BT.
- A cedar 14 ins. dia., bears, S. $14^{\circ}25'$ E., 41 lks. dist.,
marked $\frac{1}{4}$ S 13 BT.
- 49.90 Ravine, 35 ft. deep, drains SE.
- 80.00 The cor. of secs. 11-12-13 and 14.
- Land, rolling and mountainous.
- Soil, sandy loam on mesa, 2nd. rate, balance sandstone
ledges and loose rock, 4th. rate.
- Subsoil, sandstone.
- Timber, cedar and pinyon.
- Mountainous or heavily timbered land on 80.00 chs.

August 11, 1911.

August 12: At 8h. 05m., a.m., l.m.t., I set off $37^{\circ}47'$ N. on
the lat. arc, $15^{\circ}13'$ N' on the decl. arc, and at the cor. of
secs. 11-12-13 and 14, determine a meridian with the solar.

Thence I run

- N. $0^{\circ}01'$ W., bet. secs. 11 and 12.
- Over rolling mesa, through heavy timber.
- 40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 11 in W. half,
and S 12 in E. half; from which

Subdivision of T. 35 S., R. 25 E.

CHAINS

A pinyon 4ins. dia., bears, S. 57°48'E., 30 lks. dist.,
marked $\frac{1}{4}$ S 12 BT.

A cedar 5ins. dia., bears, N. 23°04'W., 37 lks. dist.,
marked $\frac{1}{4}$ S 11 BT.

Leave heavy timber, bears NE. and SW. Enter scattering
timber and dense undergrowth.

63.00 Leave scattering timber.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground
for cor. of secs. 1-2-11 and 12, marked on brass cap,

T 35 S S 2 in NW.

R 25 E S 1 in NE.

S 12 in SE. and

S 11 in SW. quadrant; dig pits 18x18x12 ins in each sec.
5 $\frac{1}{2}$ ft. dist; and raise a mound of earth 4ft. base, 2ft.
high W. of cor.

Land, rolling.

Soil, sandy loam 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Heavily timbered land or land covered with dense under-
growth on 80.00chs.

S. 29°56'E., on random line bet. secs. 1 and 12.

80.00 Set temp. $\frac{1}{4}$ sec. cor.

80.00 Intersect W. bdy. of Tp. 7 lks. S. of the re-established
cor. of secs. 1-6-7 and 12.

Thence I run

N. 29°59'W., on true line bet. secs. 1 and 12.

Over rolling mesa, through dense undergrowth.

80.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 1 in N. half,
and S 12 in S. half; dig pits 18x18x12 ins. E. and W. of
post 3ft. dist.; and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$
ft. high N. of cor.

80.00 The cor. of secs. 1-2-11 and 12.

CHAINS

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

No timber.

Undergrowth, sagebrush.

Land covered with dense undergrowth on 80.00chs.

August 12: At 10h.05m., p.m., 1.m.t., I set off $15^{\circ}10'N.$ on the decl. arc, and at the cor. of secs. 1-2-11. and 12, observe the sun on the meridian, the resulting lat. is $37^{\circ}48'N.$

Thence I run

$N.0^{\circ}01'W.$, on random line bet. secs. 1 and 2.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.82 Intersect N. bdy. of Tp. 3 lks. E. of the re-established cor. of secs. 1-21-35 and 36, heretofore described.

Thence I run South on true line bet. secs. 1 and 2.

Descend, through dense undergrowth.

3.52 Enter scattering timber.

15.10 Top of sandstone ledges, 50ft. high, bear NE. and SW. abrupt descent.

15.30 Ravine, 50ft. deep in the bottom of Horsehead Canon, drains SW. Abrupt ascent over broken ledges.

28.00 Top of ledges, 50ft. high, bears NE. and SW.

Thence over rolling mesa,

39.82 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 2 in W. half, and S 1 in E. half; from which

A pinxon 5ins. dia., bears, $N.84^{\circ}38'E.$, 28 lks. dist., marked $\frac{1}{4}$ S 1 BT.

A pinxon 12ins. dia., bears, $S.50^{\circ}21'W.$, 54 lks. dist., marked $\frac{1}{4}$ S 2 BT.

57.00 Hollow 35ft. deep, drains NW.

74.30 Leave scattering timber.

79.82 The cor. of secs. 1-2-11 and 12.

CHAINS

Land, mountainous and rolling.

Soil, sandy loam on mesa, 1st. rate, balance sandstone ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, or land covered with scattering timber or dense undergrowth on 79.82chs.

August 12, 1911.

Eben D. Andrews
U.S. Transitman.

August 7: At 8h.06m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on the lat. arc, $16^{\circ}39'N.$ on the decl. arc, and at the re-established standard cor. of secs. 34 and 35, determine a meridian with the solar. (Corner heretofore described).

Thence I run

$N.0^{\circ}01'W.$, bet. secs. 34 and 35..

Ascend over sandstone ledges, through heavy timber.

- .70 Top of ledges, bear NE. and SW. Thence over rolling mesa.
- 40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S, 34 in W. half, and S 35 in E. half; from which
- A pinyon 7ins. dia., bears, East, 44 lks. dist., marked $\frac{1}{4}$ S 35 BT.
- A pinyon 8ins. dia., bears, West, 3 lks. dist., marked $\frac{1}{4}$ S 34 BT.
- 80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 26-27-34 and 35, marked on brass cap,
- T 35 S S 27 in NW.
- R 25 E S 26 in NE.
- S 35 in SE. and
- S 34 in SW. quadrant; from which
- A cedar 9ins. dia., bears, $N.74^{\circ}45'E.$, 5 lks. dist., marked T 35 S R 25 E S 26 BT.
- A pinyon 6ins. dia., bears, $S.15^{\circ}06'E.$, 30 lks. dist.,

Subdivision of T.35 S.,R.25 E.

CHAINS

marked T 35 S R 25 E S 35 BT.

A cedar 8ins.dia.,bears, S.50°08'W.,65 lks. dist.,

marked T 35 S R 25 E S 34 BT.

A pinyon 9ins.dia.,baers, N.70°36'W.,18 lks.dist.,

marked T 35 S R 25 E S 27 BT.

Land,rolling.

Soil,sandy loam on mesa, 1st. rate,balance sandstone ledges, 4th. rate.

Subsoil,sandstone.

Timber,cedar and pinyon.

Heavily timbered land on 80.00chs.

August 7: At 02h.06m.,p.m.,l.m.t., I set off 16°36'N. on the decl. arc,and at the cor. of secs. 26-27-34 and 35, observe the sun on the meridian,the resulting lat. is 37°44'N.

Thence I run

East on random line bet. secs. 26 and 35.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.14 Intersect N. and S. line, 28 lks. N. of the cor. of secs. 25-26-35 and 36,

Thence I run

N.89°51'W.,on true line bet. secs. 26 and 35.

Ascend over mountainous land,through heavy timber.

37.09 Begin abrupt ascent over sandstone ledges.

40.07 Set an iron post 3ft. long,1 in.dia.,26ins. in the ground for $\frac{1}{4}$ sec. cor.,marked on brass cap, $\frac{1}{4}$ S 26 in N. half, and S 35 in S. half;from which

A cedar 11ins.dia.,bears, N.14°25'E.,42 lks. dist., marked $\frac{1}{4}$ S 26 BT.

A cedar 7ins.dia.,bears, S.14°25'W.,4 lks. dist., marked $\frac{1}{4}$ S 35 BT.

40.75 Top of ledges,200ft. high,bear NE. and SW. Thence over rolling mesa.

80.14 The cor. of secs. 26-27-34 and 35.

CHAINS

Land, mountainous and rolling.

Soil, sandy loam, loose rock and sandstone ledges on first 40.00 chs., 4th. rate, balance sandy loam 2nd. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous, or heavily timbered land on 20.00 chs.

August 7, 1911.

August 9: At 25.05^m, a.m., 1.2.0., I set off 37°44'N. on the 1st. arc, 16°05'N. on the decl. arc, and at the cor. of secs. 26-27-34 and 35, determine a meridian with the solar. Thence I run

S. 0°01'N., bet. secs. 26 and 27.

Over rolling mesa, through heavy timber.

33.75 Hollow, 45ft. deep, drains SE.

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 27 in W. half, and S 26 in E. half; from which

A cedar 6 ins. dia., bears, N. 54°34'N., 32 lks. dist., marked $\frac{1}{4}$ S 26 BT.

A cedar 6 ins. dia., bears, N. 27°36'W., 17 lks. dist., marked $\frac{1}{4}$ S 27 BT.

20.00 Set an iron post 3ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 22-23-26 and 27, marked on brass cap,

T 35 S R 22 in NW.

R 25 E S 23 in NE.

R 26 in SE. and

S 27 in SW. quadrant; from which

A cedar 6 ins. dia., bears, N. 12°20'E., 32 lks. dist., marked T 35 S R 25 E S 23 BT.

A cedar 8 ins. dia., bears, S. 46°56'E., 112 lks. dist., marked T 35 S R 25 E S 26 BT.

A cedar 6 ins. dia., bears, S. 9°48'W., 133 lks. dist., marked T 35 S R 25 E S 27 BT.

A cedar 9 ins. dia., bears, N. 20°30'W., 40 lks. dist.,

Subdivision of T.35 S.,R.25 E.

CHAINS

marked T 35 S R 25 E S 22 BT.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Heavily timbered land on 80.00chs.

August 9: At 10h.05m., p.m., l.m.t., I set off $16^{\circ}02'N$. on the decl. arc, and at the cor. of secs. 22-23-26 and 27, observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N$.

Thence I run

S. $89^{\circ}51'E$, on random line bet, secs. 23 and 26.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.02 Intersect N. and S. line at the re-established cor. of secs. 23-24-25 and 26,

Thence I run N. $89^{\circ}51'W$, on true line bet. secs. 23 and 26.

Abrupt ascent over sandstone ledges, through heavy timber.

4.96 Top of ledges, 150ft. high, bear N. and S.

Gradual ascent.

11.72 Sandstone boulder 20x25x35ft. on line.

40.01 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 23 in N. half, and S 26 in S. half; from which

A cedar 14ins. dia., bears, N. $17^{\circ}25'E$, 21 lks. dist., marked $\frac{1}{4}$ S 23 BT.

A cedar 12ins. dia., bears, S. $75^{\circ}08'E$, 29 lks. dist., marked $\frac{1}{4}$ S 26 BT.

44.57 Begin abrupt ascent over sandstone ledges.

47.66 Top of ledges, 200ft. high, bear NE. and SW. Thence over rolling mesa

80.02 The cor. of secs. 22-23-26 and 27.

Land, mountainous and rolling.

Soil, sandy loam, loose rock and sandstone ledges on first 48.00chs., 4th. rate, balance sandy loam 1st. rate.

CHAINS

Subsoil, sandstone.
 Timber, cedar and pinyon.
 Mountainous or heavily timbered land on 80.00 chs.

August 9, 1911.

August 10: At 8h.05m., a.m., l.m.t., I set off $37^{\circ}45'N.$ on the lat. arc, $15^{\circ}48'N.$ on the decl. arc, and at the cor. of secs. 22-23-26 and 27, determine a meridian with the solar.
 Thence I run

$N.0^{\circ}01'W.$, bet. secs. 22 and 23.

Over rolling mesa, through heavy timber.

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22 in W. half, and S 23 in E. half; from which

A cedar 7 ins. dia., bears, $N.83^{\circ}33'E.$, 37 lks. dist., marked $\frac{1}{4}$ S 23 BT.

A pinyon 10 ins. dia., bears, $N.18^{\circ}02'W.$, 32 lks. dist., marked $\frac{1}{4}$ S 22 BT.

80.00 Set an iron post 3ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 14-15-22 and 23, marked on brass cap,

T 35 S S 15 in NW.

R 25 E S 14 in NE.

S 23 in SE. and

S 22 in SW. quadrant; from which

A cedar 8 ins. dia., bears, $N.0^{\circ}05'E.$, 3 lks. dist., marked T 35 S R 25 E S 14 BT.

A cedar 11 ins. dia., bears, $S.65^{\circ}43'E.$, 27 lks. dist., marked T 35 S R 25 E S 23 BT.

A pinyon 8 ins. dia., bears, $S.77^{\circ}19'W.$, 27 lks. dist., marked T 35 S R 25 E S 22 BT.

A cedar 6 ins. dia., bears, $N.46^{\circ}06'W.$, 42 lks. dist., marked T 35 S R 25 E S 15 BT.

Land, rolling.

Soil, sandy loam, 1st. rate.

CHAINS

Subsoil, sandstone.

Timber, cedar and pinyon.

Heavily timbered land on 80.00chs.

S.89°51'E., on random line bet. secs. 14 and 23.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.04 Intersect N. and S. line-16 lks. S. of the cor. of secs. 13-14-23 and 24.

Thence I run

N.89°58'W., on true line bet. secs. 14 and 23.

Over rolling mesa, through heavy timber.

40.02 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 14 in N. half, and S 23 in S. half; from which

A pinyon 6ins. dia., bears, N.8°01'E., 45 lks. dist.,

marked $\frac{1}{4}$ S 14 BT.

A pinyon 10ins. dia., bears, S.64°03'E., 11 lks. dist.,

marked $\frac{1}{4}$ S 23 BT.

80.04 The cor. of secs. 14-15-22 and 23.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Heavily timbered land on 80.04chs.

Note-The sky was overcast at noon. Latitude observation

impossible.

August 10, 1911.

August 11: At 8h.05m., a.m., l.m.t., I set off 37°46'N. on the lat. arc, 15°31'N. on the decl. arc, and at the cor. of secs. 14-15-22 and 23, determine a meridian with the solar.

Thence I run

N.0°01'W., bet. secs. 14 and 15.

Over rolling mesa, through heavy timber.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 15 in W. half,

CHAINS

and S 14 in E. half; from which

A pinyon 7ins.dia., bears, N.88°16'E., 48 lks. dist.,
marked $\frac{1}{4}$ S 14 BT.

A cedar 7ins.dia., bears, S.68°42'W., 72 lks. dist.,
marked $\frac{1}{2}$ S 15 BT.

80.00 Set an iron post 3ft. long, 2ins.dia., 2 $\frac{1}{2}$ ins. in the ground
for cor. of secs. 10-11-14 and 15, marked on brass cap,
T 35 S S 10 in NW.
R 25 E S 11 in NE.
S 14 in SE. and
S 15 in SW. quadrant; from which

A pinyon 5ins.dia., bears, N.47°04'E., 184 lks. dist.,
marked T 35 S R 25 E S 11 BT.

A cedar 7ins.dia., bears, S.65°02'E., 137 lks. dist.,
marked T 35 S R 25 E S 14 BT.

A cedar 5ins.dia., bears, S.20°00'W., 142 lks. dist.,
marked T 35 S R 25 E S 15 BT.

A pinyon 6ins.dia., bears, N.37°50'W., 163 lks. dist.,
marked T 35 S R 25 E S 10 BT.

Land, rolling.

Soil, sandy loam, 1st. rate..

Subsoil, sandstone.

Timber, cedar and pinyon..

Heavily timbered land on 80.00chs.

August 11: At 0 h.05m., p.m., l.m.t., I set off 15°27'N. on
the decl. arc, and at the cor. of secs. 10-11-14 and 15,
observe the sun on the meridian, the resulting lat. is
37°47'N.

Thence I run

S.89°58'E., on random line bet. secs. 11 and 14.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.06 Intersect N. and S. line at the cor. of secs. 11-12-13
and 14.

Thence I run

N.89°58'W., on true line bet. secs. 11 and 14.

CHAINS

Over rolling mesa, through heavy timber.

40.03 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap, $\frac{1}{4}$ S 11 in N. half, and S 14 in S. half; from which

A cedar 7 ins. dia., bears, N. $31^{\circ}15'$ E., 110 lks. dist., marked $\frac{1}{4}$ S 11 BT.

A pinyon 5 ins. dia., bears, S. $67^{\circ}40'$ W., 32 lks. dist., marked $\frac{1}{4}$ S 14 BT.

80.06 The cor. of secs. 10-11-14 and 15.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Heavily timbered land on 80.06chs.

August 11, 1911.

August 12: At 8h.05m., a.m., l.m.t., I set off $37^{\circ}47'$ N. on the lat. arc, $15^{\circ}13'$ N. on the decl. arc, and at the cor. of secs. 10-11-14 and 15, determine a meridian with the solar.

Thence I run

N. $0^{\circ}01'$ W., bet. secs. 10 and 11.

Over rolling mesa, through heavy timber.

35.10 Leave heavy timber, bears NE. and SW. Enter scattering timber and dense undergrowth.

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 10 in W. half, and S 11 in E. half; from which

A pinyon 6 ins. dia., bears, N. $67^{\circ}40'$ E., 27 lks. dist., marked $\frac{1}{4}$ S 11 BT.

A pinyon 6 ins. dia., bears, N. $23^{\circ}13'$ W., 127 lks. dist., marked $\frac{1}{4}$ S. 10, BT.

59.92 Leave dense undergrowth, enter heavy timber, bears NW. and SE.

80.00 Set an iron post 3ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 2-3-10 and 11, marked on brass cap,

CHAINS

- ✓ T 35 S S 3 in NW.
- ✓ R 25 E S 2 in NE.
- ✓ S 11 in SE. and
- ✓ S 10 in SW. quadrant; from which

A cedar 8ins.dia., bears, N.43°25'E., 38 lks. dist.,
marked T 35 S R 25 E S 2 BT.

A cedar 8ins.dia., bears, S.75°35'E., 25 lks. dist.,
marked T 35 S R 25 E S 11 BT.

A pinyon 8ins.dia., bears, S.55°15'W., 15 lks. dist.,
marked T 35 S R 25 E S 10 BT.

A cedar 6ins.dia., bears, N.47°32'W., 32 lks dist.,
marked T 35 S R 25 E S 3 BT.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Heavily timbered land or land covered with dense under-
growth on 80.00chs.

S.89°58'E., on random line bet. secs. 2 and 11.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.06 Intersect N. and S. line 11 lks. S. of the cor. of secs.
1-2-11 and 12.

Thence I run

S.89°57'W., on true line bet. secs. 2 and 11.

Over rolling mesa, through scattering timber and dense
undergrowth.

40.03 ✓ Set an iron post 3ft. long, 1 in.dia., 26ins. in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 2 in N. half,
and S 11 in S. half; from which

A pinyon 5ins.dia., bears, N.21°15'W., 27 lks. dist.,
marked $\frac{1}{4}$ S 2 BT.

A pinyon 5ins.dia., bears, S.27°05'W., 48 lks. dist.,
marked $\frac{1}{4}$ S 11 BT.

54.96 Hollow 45ft. deep, drains NW!

CHAINS

80.06 The cor. of secs. 2-3-10 and 11.
 Land, rolling.
 Soil, sandy loam, 2nd. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush.
 Land covered with scattering timber and dense undergrowth on 80.06chs.

August 12: At 10h.05m., p.m., l.m.t., I set off 15°10' N. on the decl. arc, and at the cor. of secs. 2-3-10 and 11, observe the sun on the meridian, the resulting lat. is 37°48' N.

Thence I run

N.0°01' W., on random line bet. secs. 2 and 3.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.78 Intersect N. bdy. of Tp. 5 lks. E. of the re-established cor. of secs. 2-3-34 and 35, heretofore described.

Thence I run

S.0°01' W., on true line bet. secs. 2 and 3.

Over rolling mesa, through dense undergrowth.

21.13 Leave dense undergrowth, enter heavy timber, bears E. and W.

39.78 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 3 in. W. half, and S 2 in E. half; from which

A cedar 10 ins. dia., bears, N.36°30' E., 53 lks. dist., marked $\frac{1}{4}$ S 2 BT.

A cedar 6 ins. dia., bears, S.57°21' W., 28 lks. dist., marked $\frac{1}{4}$ S 3 BT.

54.48 Top of sandstone ledges, 100ft. high, bear NE. and SW.
 Abrupt descent.

66.56 Ravine, 40ft. deep, in the bottom of Horsehead Canon, drains SW.

Abrupt ascent over sandstone ledges.

68.70 Wire fence, bears NW. and SE.

CHAINS

76.00

Top of ledges, 100ft. high, bear NE. and SW.

Gradual ascent.

79.78

The cor. of secs. 2-3-10 and 11.

Land, mountainous and rolling.

Soil, sandy loam on mesa, 2nd. rate, balance sandstone ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, heavily timbered land or land covered with dense undergrowth on 79.78chs,

August 12, 1911.

Melvin H. Geist
U. S. Transitman.

August 14: At 8h. 05m., a.m., 1.m.t., I set off $37^{\circ}43'N.$ on the lat. arc, $14^{\circ}37'N.$ on the decl. arc, and at the re-established standard cor. of secs. 33 and 34, determine a meridian with the solar. (Corner heretofore described).

Thence I run

$N. 0^{\circ}02'W.$ bet. secs. 33 and 34.

Descend over mountainous land, through heavy timber,

7.10 Ravine, 35ft. deep, drains SW.

Ascend.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 33 in W. half, and S 34 in E. half; from which

A cedar 6ins. dia., bears, $N. 53^{\circ}32'E.$, 52 lks. dist., marked $\frac{1}{4}$ S 34 BT.

A pinyon 5ins. dia., bears, $S. 41^{\circ}32'W.$, 32 lks. dist., marked $\frac{1}{4}$ S 33 BT.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 27-28-33 and 34, marked on brass cap,

T 35 S S 28 in NW.

R 25 E S 27 in NE.

S 34 in SE. and

CHAINS.

S 33 in SW. quadrant; from which

A pinyon 5 ins. dia., bears, N. $47^{\circ}39'E.$, 49 lks. dist.,
marked T 35 S R 25 E S 27 BT.

A pinyon 7 ins. dia., bears. S. $42^{\circ}48'E.$, 36 lks. dist.,
marked T 35 S R 25 E S 34 BT.

A pinyon 14 ins. dia., bears, S. $3^{\circ}28'W.$, 70 lks. dist.,
marked T 35 S R 25 E S 33 BT.

A pinyon 9 ins. dia., bears, N. $30^{\circ}27'W.$, 33 lks. dist.,
marked T 35 S R 25 E S 28 BT.

Land, mountainous.

Soil, sandy loam and loose rock, 3d. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous heavily timbered land on 80.00chs.

August 14: At 0h.05m., p.m., l.m.t., I set off $14^{\circ}33'N.$ on
the decl. arc, and at the cor. of secs 27-28-33 and 34,
observe the sun on the meridian, the resulting lat. is
 $37^{\circ}44'N.$

Thence I run

East on random line bet. secs. 27 and 34.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.94 Intersect N. and S. line 19 lks. S. of the cor. of secs.
26-27-34 and 35.

Thence I run

S. $89^{\circ}52'W.$, on true line bet. secs. 27 and 34.

Over rolling mesa, through heavy timber.

17.50 Top of sandstone ledges, 100ft. high, bear NE. and SW.
Abrupt descent.

26.90 Ravine, 50ft. deep, 200ft. wide, drains SW.
Ascend.

39.97 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 27 in N. half,
and S 34 in S. half; from which

A cedar 15 ins. dia., bears, N. $52^{\circ}53'W.$, 12 lks. dist.,

CHAINS

marked $\frac{1}{4}$ S 27 BT.

A pinyon 6ins. dia., bears, S.17°50'E., 40 lks. dist.,

marked $\frac{1}{4}$ S 34 BT.

- 54.00 Begin abrupt ascent over sandstone ledges.
- 55.20 Top of ledges, 100ft. high, bear NE. and SW.
Gradual ascent.
- 58.20. Top of spur, projects 3chs. S.
Descend.
- 59.05 Top of sandstone ledges, 100ft. high, bear NW. and SE.
Abrupt descent.
- 61.20 Foot of ledges
Gradual descent.
- 71.50 Ravine, 45ft. deep, 175ft. wide, drains S.
Ascend.
- 79.94 The cor. of secs. 27-28-33 and 34.
Land, mountainous and rolling.
Soil, sandy loam on mesa, 1st. rate, balance sandstone ledges
and loose rock, 4th. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Mountainous or heavily timbered land on 79.94chs.
-
- N.0°02'W., bet. secs. 27 and 28.
Ascend over mountainous land, through heavy timber.
- 20.00 Hollow 50ft. deep, drains SE.
- 31.90 Begin abrupt ascent over broken sandstone ledges.
- 40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 28 in W. half,
and S 27 in E. half; from which
A pinyon 7ins. dia., bears, S.68°42'E., 10 lks. dist.,
marked $\frac{1}{4}$ S 27 BT.
A pinyon 8ins. dia., bears, S.54°06'W., 35 lks. dist.,
marked $\frac{1}{4}$ S 28 BT.
- 41.00 Top of ledges, 100ft. high, bear E. and W. Thence over
rolling mesa.
- 80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground

Subdivision of T.35 S.,R.25 E.

CHAINS

for cor. of secs. 21-22-27 and 28, marked on brass cap;
 T 35 S S 21 in NW.
 R 25 E S 22 in NE.
 S 27 in SE. and
 S 28 in SW. quadrant; from which

A pinyon 8 ins. dia., bears, N. 68° 30' E., 43 lks. dist.,
 marked T 35 S R 25 E S 22 BT.

A pinyon 6 ins. dia., bears, S. 58° 37' E., 55 lks. dist.,
 marked T 35 S R 25 E S 27 BT.

A pinyon 12 ins. dia., bears, S. 25° 36' W., 49 lks. dist.,
 marked T 35 S R 25 E S 28 BT.

A pinyon 8 ins. dia., bears, N. 6° 03' W., 55 lks. dist.,
 marked T 35 S R 25 E S 21 BT.

Land, mountainous and rolling.

Soil, sandy loam, loose rock and sandstone ledges on first
 42.00 chs., 4th. rate, balance sandy loam 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous or heavily timbered land on 80.00 chs.

August 14, 1911.

August 15: At 8h. 05m., a.m., l.m.t., I set off 37° 45' N. on
 the lat. arc, 14° 18' N. on the decl. arc, and at the cor. of
 secs. 21-22-27 and 28, determine a meridian with the solar.

Thence I run

N. 89° 52' E., on random line bet. secs. 22 and 27.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.80 Intersect N. and S. line 19 lks. N. of the cor. of secs.
 22-23-26 and 27.

Thence I run

West on true line bet. secs. 22 and 27.

Over rolling mesa, through heavy timber.

39.90 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22 in N. half,
 and S 27 in S. half; from which

CHAINS

A pinyon 12ins.dia., bears, N.15°38'E., 43 lks. dist., marked $\frac{1}{4}$ S 22 BT.

A cedar 18ins.dia., bears, S.38°41'W., 19 lks. dist., marked $\frac{1}{4}$ S 27 BT.

79.80 The cor. of secs. 21-22-27 and 28.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Heavily timbered land on 79.90chs.

K

N.0°02'W., bet, secs. 21 and 22.

Over rolling mesa, through heavy timber.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 21 in W. half, ans S 22 in E. half; from which

A cedar 9ins.dia., bears, S.84°20'E., 22 lks. dist., marked $\frac{1}{4}$ S 22 BT.

A pinyon 12ins.dia., bears, S.33°22'W., 33 lks. dist., marked $\frac{1}{4}$ S 21 BT.

80.00 Set an iron post 3ft. long, 2ins.dia., 24ins. in the ground for cor. of secs. 15-16 22 and 23, marked on brass cap,

T 35 S S 16 in NW.

R 25 E S 15 in NE.

S 22 in SE. and

S 21 in SW. quadrant; from which

A cedar 8ins.dia., bears, N.72°27'E., 29 lks. dist., marked T 35 S R 25 E S 15 BT.

A pinyon 7ins.dia., bears, S.61°34'E., 54 lks. dist., marked T 35 S R 25 E S 22 BT.

A pinyon 5ins.dia., bears, S.34°03'W., 9 lks. dist., marked T 35 S R 25 E S 21 BT.

A pinyon 8ins.dia., bears, N:62°04'W., 21 lks. dist., marked T 35 S R 25 E S 16 BT.

Land, rolling.

CHAINS

Soil, sandy loam, 1st. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Heavily timbered land on 80.00chs.

August 15: At 10h.05m., p.m., l.m.t., I set off $14^{\circ}15'N.$ on the decl. arc, and at the cor. of secs, 15-16-21 and 22, observe the sun on the meridian, the resulting lat. is $37^{\circ}46'N.$

Thence I run

East on random line bet. secs. 15 and 22.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.84 Intersect N. and S. line 9 lks. S. of the cor. of secs. 14-15-22 and 23.

Thence I run

S. $89^{\circ}56'W.$, on true line bet. secs. 15 and 22.

Over rolling mesa, through heavy timber.

39.92 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 15 in N. half, and S 22 in S. half; from which

A cedar 7 ins. dia., bears, N. $6^{\circ}52'W.$, 50 lks. dist., marked $\frac{1}{4}$ S 15 BT.

A cedar 5 ins. dia., bears, S. $7^{\circ}03'E.$, 41 lks. dist., marked $\frac{1}{4}$ S 22 BT.

79.84 The cor. of secs. 15-16-21 and 22.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Heavily timbered land on 79.84chs.

August 15, 1911.

August 16: At 8h.04m., a.m., l.m.t., I set off $37^{\circ}46'N.$ on the lat. arc, $14^{\circ}00'N.$ on the decl. arc, and at the cor. of secs. 15-16-21 and 22, determine a meridian with the solar.

Thence I run.

CHAINS

N.0°02'W., bet. secs. 15 and 16.

11.00 Over rolling mesa, through heavy timber.
 40.00 Ravine, 35ft. deep, 200ft. wide, drains SW.
 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground

for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 16 in W. half,
 and S 15 in E. half; from which

A pinyon 5ins. dia., bears, N.79°36'E., 111 lks. dist.,
 marked $\frac{1}{4}$ S 15 BT.

A cedar 7ins. dia., bears, S.37°32'W., 136 lks. dist.,
 marked $\frac{1}{4}$ S 16 BT.

52.00 Leave timber, bears E. and W. Enter dense undergrowth.

75.00 Top of sandstone ledges, 100ft. high, bear E. and W.
 Abrupt descent.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground
 for cor. of secs. 9-10-15 and 16, marked on brass cap,
 T 35 S S 9 in NW.

R 25 E S 10 in NE.

S 15 in SE. and

S 16 in SW. quadrant; dig pits 18x18x12ins. in each sec.
 5 $\frac{1}{2}$ ft. dist.; and raise a mound of earth 4ft. base, 2ft.
 high W. of cor.

Land, mountainous and rolling

Soil, sandy loam on first 75.00chs., 1st. rate, balance
 sandstone ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, heavily timbered land or land covered
 with dense undergrowth on 80.00chs.

N.89°56'E., on random line bet. secs. 10 and 15.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.80 Intersect N. and S. line 9 lks S. of the cor. of secs.,
 10-11-14 and 15.

Thence I run

S.39°52'W., on true line bet. secs. 10 and 15.

Descend, through scattering timber and dense undergrowth.

Subdivision of T.35 S., R.25 E.

CHAINS

- 20.10 Leave scattering timber.
- 21.75 Ravine, 50ft. deep, drains NW. Thence along S. side of ravine.
- 39.90 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 10 in N. half, and S 15 in S. half; raise a mound of stone, 2ft. base, $1\frac{1}{2}$ ft. high N. of cor. Pits impracticable.
- 79.80 The cor. of secs. 9-10-15 and 16.
 Land, mountainous and rolling.
 Soil, sandy loam and loose rock, 3d. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush and oak brush.
 Mountainous land or land covered with dense undergrowth or scattering timber on 79.80chs.

August 16: At 0h.04m., p.m., l.m.t., I set off $13^{\circ}56'N.$ on the decl. arc, and at the cor. of secs. 9-10-15 and 16, observe the sun on the meridian, the resulting lat. is $37^{\circ}47'N.$

Thence I run

N. $0^{\circ}02'W.$ bet. secs. 9 and 10.

Descend over mountainous land, through dense undergrowth.

- 5.00 Ravine, 50ft. deep, 200ft. wide, drains W.
 Abrupt ascent over sandstone ledges.
- 14.00 Top of ledges, 150ft. high, bear NW. and SE.
 Enter scattering timber. Ascend.
- 30.50 Top of spur, projects 3chs. W.
 Descend.
- 32.50 Top of sandstone ledges, 150ft. high, bear NE. and SW.
 Abrupt descent.
- 39.20 Foot of ledges.
 Gradual descent.
- 40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 9 in W. half,

CHAINS

S 10 in E. half; from which
 A cedar 6 ins. dia., bears, S. 62°00' E., 122 lks. dist.,
 marked $\frac{1}{2}$ S 10 BT.
 A cedar 7 ins. dia., bears, N. 89°15' W., 112 lks. dist.,
 marked $\frac{1}{2}$ S 9 BT.

65.35 Ravine, 35 ft. deep, 150 ft. wide, in the bottom of Horsehead
 Canon, drains SW.
 Ascend.

20.00 Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground
 for cor. of secs. 3-4-9 and 10, marked on brass cap,
 T 35 S S 4 in NW.
 R 25 E S 3 in NE.
 S 10 in SE. and
 S 9 in SW. quadrant, from which
 A cedar 11 ins. dia., bears, N. 22°15' E., 27 lks. dist.,
 marked T 35 S R 25 E S 3 BT.

A pinyon 8 ins. dia., bears, S. 48°25' E., 24 lks. dist.,
 marked T 35 S R 25 E S 10 BT.
 A cedar 7 ins. dia., bears, S. 36°29' W., 53 lks. dist.,
 marked T 35 S R 25 E S 9 BT.
 A pinyon 6 ins. dia., bears, N. 47°52' W., 62 lks. dist.,
 marked T 35 S R 25 E S 4 BT.

Land, mountainous.
 Soil, sandy loam, loose rock and sandstone ledges, 4th
 rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush.

Mountainous land covered with scattering timber and
 dense undergrowth on 80.00chs.
 August 16, 1911.

August 18: At 8h. 04m., a.m., l.m.t., I set off 37°45' N. on
 the lat. arc, 13°22' N. on the decl. arc, and at the cor. of
 secs. 3-4-9 and 10, determine a meridian with the solar.

CHAINS

- Thence I run
 N.89°52'E., on random line bet. secs. 3 and 10.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.84 Intersect N. and S. line 18 lks. N. of the cor. of secs.
 2-3-10 and 11.
- Thence I run
 West on true line bet. secs. 3 and 10.
 Descend over mesa, through heavy timber.
- 14.75 Top of sandstone ledges, 140ft. high, bear NE. and SW.
 Abrupt descent.
- 21.50 Ravine, 45ft. deep, drains N.
 Abrupt ascent over sandstone ledges.
- 30.10 Top of ledges, 140ft. high, bear NW. and SE.
 Gradual ascent.
- 35.20 Spur, projects 2chs. N.
 Descend.
- 37.10 Top of sandstone ledges, 150ft. high, bear NE. and SW.
 Abrupt descent.
- 39.50 Foot of ledges.
 Gradual descent.
- 39.92 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 3 in N. half,
 and S 10 in S. half; from which
 A cedar 8ins. dia., bears, N.75°10'E., 43 lks. dist.,
 marked $\frac{1}{4}$ S 3 BT.
 A pinyon 6ins. dia., bears, S.69°10'E., 44 lks. dist.,
 marked $\frac{1}{4}$ S 10 BT.
- 57.20 Ravine, 35ft. deep, 150ft. wide, in the bottom of Horsehead
 Canon, drains SW.
 Ascend.
- 79.84 The cor. of secs. 3-4-9 and 10.
 Land, mountainous.
 Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.

CHAINS

Mountainous, heavily timbered land on 79.8th ch.

August 18, 1911.

- August 19: At 8h.04m., a.m., l.m.t., I set off 37°48' N. on the lat. arc, 13°02' N. on the decl. arc, and at the cor. of secs. 3-4-9 and 10, determine a meridian with the solar. Thence I run N.0°02' W., on random line bet. secs. 3 and 4.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.93 Intersect N. bdy. of Tp. at the re-established cor. of secs. 3-4-33 and 34, heretofore described. Thence I run S.0°02' E., on true line bet. secs. 3 and 4. Over rolling mesa, through dense undergrowth.
- 16.00 Leave dense undergrowth. Enter heavy timber, bears E. and W.
- 30.00 Hollow, 50ft. deep, drains SW.
- 39.93 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap; $\frac{1}{4}$ S 4 in W. half, and S 3 in E. half; from which
 - A pinyon 5 ins. dia., bears, S. 27° 28' E., 17 lks. dist., marked $\frac{1}{4}$ S 3 BT.
 - A pinyon 5 ins. dia., bears, N. 74° 32' W., 106 lks. dist., marked $\frac{1}{4}$ S. 4 BT.
- 72.83 Top of sandstone ledges, 150ft. high, bear NE. and SW. Abrupt descent.
- 75.00 Foot of ledges. Gradual descent.
- 79.93 The cor. of secs. 3-4-9 and 10. Land, mountainous and rolling. Soil, sandy loam, on first 50.00 chs., 1st. rate; balance, sandy loam and loose rock and sandstone ledges; 4th. rate. Subsoil, sandstone. Timber, cedar and pinyon. Undergrowth, sagebrush.

CHAINS

Mountainous land, heavily timbered land or land covered with dense undergrowth on 79.93chs.

August 19, 1911.

Chas B. Andrews
U.S. Transitman.

August 14: At 8h.05m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on the lat. arc, $14^{\circ}37'N.$ on the decl. arc, and at the re-established standard cor. of secs. 32 and 33, determine a meridian with the solar. (Corner heretofore described). Thence I run $N.0^{\circ}03'W.$, bet, secs. 32 and 33.

Over rolling mesa, through heavy timber.

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec, cor., marked on brass cap, $\frac{1}{4}$ S 32 in W. half, and S 33 in E. half; from which

A cedar 6 ins. dia., bears, $N.50^{\circ}10'E.$, 44 lks. dist., marked $\frac{1}{4}$ S 33 BT.

A pin on 7 ins. dia., bears, $S.77^{\circ}40'W.$, 29 lks. dist., marked $\frac{1}{4}$ S 32 BT.

52.19 Top of sandstone ledges, 100ft. high, bear NE. and SW. Abrupt descent.

59.80 Ravine, 55ft. deep, 200ft. wide, drains SW. Abrupt ascent over sandstone ledges.

65.95 Top of ledges, 150ft. high, bear NE. and SW. Thence over rolling mesa.

80.00 Set an iron post 3ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 28-29-32 and 33, marked on brass cap,

T 35 S S 29 in NW.

R 25 E S 28 in NE.

S 33 in SE. and

S 32 in SW. quadrant; from which

A cedar 7 ins. dia., bears $N.76^{\circ}25'E.$, 36 lks. dist., marked T 35 S R 25 E S 28 BT.

A cedar 6 ins. dia., bears, $S.39^{\circ}49'E.$, 16 lks. dist., marked T 35 S R 25 E S 33 BT.

CHAINS

A pinyon 10ins. dia., bears, S. 47°23' W., 24 lks. dist., marked T 35 S R 25 E S 32 BT.

A cedar 11ins. dia., bears, N. 50°11' W., 14 lks. dist., marked T 35 S R 25 E S 29 BT.

Land, mountainous and rolling.

Soil, sandy loam on mesa, 1st. rate, balance sandstone ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land or heavily timbered land on 80.00chs.

August 14: At 0h.05m., p.m., 1.m.t., I set off 14°33' N. on the decl. arc, and at the cor. of secs. 28-29-32 and 33, observe the sun on the meridian, the resulting lat. is 37°44' N.

Thence I run

East on random line bet. secs. 28 and 33.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.06 Intersect N. and S. line 9 lks. N. of the cor. of secs. 27-28-33 and 34.

Thence I run

N. 89°56' W., on true line bet. secs. 28 and 33.

Abrupt ascent over sandstone ledges, through heavy timber.

7.51 Top of ledges, 150ft. high, bear NE. and SW. Thence over rolling mesa.

40.03 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 28 in N. half, and S 33 in S. half; from which

A cedar 8ins. dia., bears, N. 6°55' W., 10 lks. dist., marked $\frac{1}{4}$ S 28 BT.

A pinyon 10ins. dia., bears, S. 37°48' W., 61 lks. dist., marked $\frac{1}{4}$ S 33 BT.

72.50 Ravine, 35ft. deep, 140ft. wide, drains SW.

80.06 The cor. of secs. 28-29-32 and 33.

Land, mountainous and rolling.

CHAINS

Soil, sandy loam on mesa, 1st. rate, balance sandstone ledges
4th. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Mountainous land or heavily timbered land on 80.06chs.
August 14, 1911.

August 15: At 8h.05m., a.m., l.m.t., I set off $37^{\circ}44'N.$ on the lat. arc, $14^{\circ}18'N.$ on the decl. arc, and at the cor. of secs. 28-29-32 and 33, determine a meridian with the solar.

Thence I run

$N.0^{\circ}03'W.$, bet. secs. 28 and 29.

Over rolling mesa, through heavy timber.

29.50 Ravine, 75ft. deep, 225ft. wide, drains W.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S. 29 in W. half, and S 28 in E. half; from which

A cedar 9ins. dia., bears, $S.51^{\circ}07'E.$, 35 lks. dist., marked $\frac{1}{4}$ S 28 BT.

A pinyon 7ins. dia., bears, $N.65^{\circ}39'W.$, 34 lks. dist., marked $\frac{1}{4}$ S 29 BT.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 20-21-28 and 29, marked on brass cap,

T 35 S S 20 in NW.

R 25 E S 21 in NE.

S 28 in SE. and

S 29 in SW. quadrant; from which

A pinyon 6ins. dia., bears $N.85^{\circ}65'E.$, 30 lks. dist., marked T 35 S R 25 E S 21 BT.

A pinyon 9ins. dia., bears, $S.62^{\circ}35'E.$, 59 lks. dist., marked T 35 S R 25 E S 28 BT.

A cedar 14ins. dia., bears, $S.51^{\circ}40'W.$, 83 lks. dist., marked T 35 S R 25 E S 29 BT.

A pinyon 9ins. dia., bears, $N.57^{\circ}45'W.$, 25 lks. dist.,

CHAINS

marked T 35 S R 25 E S 20 BT.

Land, rolling.

Soil, sandy loam and loose rock, 2nd. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Heavily timbered land on 80.00chs.

August 15: At 10 h. 05 m., p.m., l.m.t.; I set off $14^{\circ}15'N.$ on the decl. arc, and at the cor. of secs. 20-21-28 and 29, observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N.$

Thence I run

S. $89^{\circ}56'E.$, on random line bet. secs. 21 and 28.40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.98 Intersect N. and S. line 4 lks. N. of the cor. of secs. 21-22-27, and 28.

Thence I run

N. $89^{\circ}54'W.$, on true line bet. secs. 21 and 28.

Over rolling mesa, through heavy timber.

39.99 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 21 in N. half, and S 28 in S. half: from whichA cedar 14ins. dia., bears, N. $33^{\circ}42'E.$, 97 lks. dist., marked $\frac{1}{4}$ S 21 BT.A cedar 10ins. dia., bears, S. $12^{\circ}51'E.$, 102 lks. dist., marked $\frac{1}{4}$ S 28 BT.

79.98 The cor. of secs. 20-21-28 and 29.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Heavily timbered land on 79.98chs.

August 15, 1911.

Melvin H. Heist
U.S. Transitman.

CHAINS

August 17: At 8h.04m., a.m., l.m.t., I set off $37^{\circ}45'N.$ on the lat. arc, $13^{\circ}41'N.$ on the decl. arc, and at the cor. of secs. 20-21-28 and 29, determine a meridian with the solar.

Thence I run

$N.0^{\circ}03'W.$, bet. secs. 20 and 21.

Descend, through heavy timber,

4.20 Top of sandstone ledges, 200ft. high, bear NE. and SW. Abrupt descent.

7.40 Foot of ledges.

Gradual descent.

28.30 Ravine, 45ft. deep, 185 ft. wide, drains SW.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 20 in W. half, and S 21 in E. half; from which

A pinyon 6ins. dia., bears, $S.48^{\circ}54'E.$, 37 lks. dist., marked $\frac{1}{4}$ S 21 BT.

A cedar 7ins. dia., bears, $N.71^{\circ}50'W.$, 28 lks. dist., marked $\frac{1}{4}$ S 20 BT.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 16-17-20 and 21, marked on brass cap, T 35 S S 17 in NW.

R 25 E S 16 in NE.

S 21 in SE. and

S 20 in SW. quadrant; from which

A pinyon 6ins. dia., bears, $N.72^{\circ}26'E.$, 62 lks. dist., marked T 35 S R 25 E S 16 BT.

A pinyon 5ins. dia., bears, $S.77^{\circ}33'E.$, 111 lks. dist., marked T 35 S R 25 E S 21 BT.

A cedar 7ins. dia., bears, $S.45^{\circ}36'W.$, 58 lks. dist., marked T 35 S R 25 E S 20 BT.

A pinyon 8ins. dia., bears, $N.50^{\circ}32'W.$, 9 lks. dist., marked T 35 S R 25 E S 17 BT.

Land, mountainous.

Soil, sandy loam and loose rock and sandstone ledges, 4th.

CHAINS

- rate.
- Subsoil, sandstone.
- Timber, cedar and pinyon.
- Mountainous, heavily timbered land on 80.00chs.
-
- S.89°54'E., on random line bet. secs. 16 and 21.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.96 Intersect N. and S. line 18 lks. S. of the cor. of secs. 15-16-21 and 22.
- Thence I run
- S.89°58'W., on true line bet. secs. 16 and 21.
- Over rolling mesa, through heavy timber.
- 8.25 Top of sandstone ledges, 50ft. high, bear NE. and SW.
- Abrupt descent.
- 17.40 Ravine, 65ft. deep, drains SW.
- Abrupt ascent over sandstone ledges
- 29.50 Top of ledges, 50ft. high, bear NE. and SW. Thence over rolling mesa.
- 39.98 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 16 in N. half, and S 21 in S. half; from which
- A pinyon 10ins. dia., bears, N.56°05'W., 19 lks. dist., marked $\frac{1}{4}$ S 16 BT.
- A cedar 15ins. dia., bears, S.27°04'E., 14 lks. dist., marked $\frac{1}{4}$ S 21 BT.
- 66.75 Top of sandstone ledges, 200ft. high, bear NE. and SW.
- Abrupt descent.
- 69.10 Foot of ledges.
- Gradual descent.
- 79.96 The cor. of secs. 16-17-20 and 21.
- Land, mountainous and rolling.
- Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.
- Subsoil, sandstone.
- Timber, cedar and pinyon.
- Mountainous or heavily timbered land on 79.96chs.

Subdivision of T.35 S., R.25 E.

CHAINS

August 17: At 0h.04m., p.m., l.m.t., I set off $13^{\circ}37'N.$ on the decl. arc, and at the cor. of secs. 16-17-20 and 21, observe the sun on the meridian, the resulting lat. is $37^{\circ}46'N.$

Thence I run

$N.0^{\circ}03'W!$, bet. secs. 16 and 17.

Descend over mountainous land, through heavy timber.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 17 in W. half, and S 16 in E. half; from which

A pinyon 7ins. dia., bears, $N.46^{\circ}30'E.$, 13 lks. dist., marked $\frac{1}{4}$ S 16 BT.

A cedar 14ins. dia., bears, $N.85^{\circ}27'W.$, 19 lks. dist., marked $\frac{1}{4}$ S 17 BT.

71.10 Ravine, 45ft. deep, 165ft. wide, drains SW.

Ascend.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 8-9-16 and 17, marked on brass cap,

T 35 S S 8 in NW.

R 25 E S 9 in NE.

S 16 in SE. and

S 17 in SW. quadrant; from which

A cedar 6ins. dia., bears, $N.53^{\circ}04'E.$, 30 lks. dist., marked T 35 S R 25 E S 9 BT.

A cedar 5ins. dia., bears. $S.15^{\circ}25'E.$, 60 lks. dist., marked T 35 S R 25 E S 16 BT.

A pinyon 8ins. dia., bears. $S.59^{\circ}33'W.$, 22 lks. dist., marked T 35 S R 25 E S 17 BT.

A cedar 7ins. dia., bears. $N.30^{\circ}56'W.$, 28 lks. dist., marked T. 35 S R 25 E S 8 BT.

Land, mountainous.

Soil, sandy loam and loose rock, 3d. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous, heavily timbered land on 80.00chs.

CHAINS

August 17, 1911.

August 18: For solar observation see page 32 of these notes. From the cor. of secs. 8-9-16 and 17, I run

N. $89^{\circ}58'E.$, on random line bet. secs. 9 and 16.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.90 Intersect N. and S. line 2 lks. S. of the cor. of secs. 9-10-15 and 16.

Thence I run

S. $89^{\circ}57'W.$, on true line bet. secs. 9 and 16.

Descend, through dense undergrowth.

39.00 Leave dense undergrowth. Enter heavy timber, bears NE. and SW.

39.95 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 9 in N. half, and S 16 in S. half; from which

A cedar 7 ins. dia., bears, N. $57^{\circ}03'W.$, 13 lks. dist., marked $\frac{1}{4}$ S 9 BT.

A pinyon 5 ins. dia., bears, S. $64^{\circ}18'W.$, 13 lks. dist., marked $\frac{1}{4}$ S 16 BT.

75.50 Ravine, 45ft. deep, 175ft. wide, in the bottom of Horsehead Canon, drains SW.

Ascend.

79.90 The cor. of secs. 8-9-16 and 17.

Land, mountainous.

Soil, sandy loam and loose rock, 2nd. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land, heavily timbered land or land covered with dense undergrowth on 79.90chs.

1

August 18: At 10h.04m., p.m., l.m.t., I set off $13^{\circ}18'N.$ on the decl. arc, and at the cor. of secs. 8-9-16 and 17, observe the sun on the meridian, the resulting lat. is $37^{\circ}47'N.$ Thence I run

N. $0^{\circ}03'W.$, bet. secs. 8 and 9.

Subdivision of T.35 S.,R.25 E.

CHAINS

Ascend over mountainous land, through heavy timber.

36.40 Begin abrupt ascent over sandstone ledges.

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 8 in W. half, and S 9 in E. half; from which

A pinyon 5 ins. dia., bears, S. 56° 52' E., 9 lks. dist., marked $\frac{1}{4}$ S 9 BT.

A pinyon 10 ins. dia., bears, N. 57° 21' W., 24 lks. dist., marked $\frac{1}{4}$ S 8 BT.

42.00 Top of ledges, 150 ft. high, bear NE. and SW. Thence over rolling mesa.

55.50 Leave timber, bears E. and W. Enter dense undergrowth.

80.00 Set an iron post 3ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 4-5-8 and 9, marked on brass cap,

T 35 S S 5 in NW.

R 25 E S 4 in NE.

S 9 in SE. and

S 8 in SW. quadrant; dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, mountainous and rolling.

Soil, sandy loam, loose rock and sandstone ledges on first 42.00 chs., 4th. rate, balance sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.00 chs.

N. 29° 57' E., on random line bet. secs. 4 and 9.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.10 Intersect N. and S. line at the cor. of secs. 3-4-9 and 10.

Thence I run

S. 29° 57' W., on true line bet. secs. 4 and 9.

CHAINS

Descend over mountainous land, through heavy timber.
 10.00 Ravine, 55ft. deep, 200ft. wide, drains SE.
 Ascend.
 18.10 Begin abrupt ascent over sandstone ledges.
 22.75 Top of ledges, 150ft. high, bear NE. and SW. Thence over rolling mesa.
 40.05 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 4 in N. half, and S 9 in S. half; from which
 A pinyon 10ins. dia., bears, N. 67° 26' E., 17 lks. dist., marked $\frac{1}{4}$ S 4 BT.
 A cedar 6ins. dia., bears, S. 49° 37' W., 27 lks. dist., marked $\frac{1}{4}$ S 9 BT.
 50.00 Leave timber, bears NE. and SW. Enter dense undergrowth.
 80.10 The cor. of secs. 4-5-8 and 9.
 Land, mountainous and rolling.
 Soil, sandy loam, loose rock and sandstone ledges on first 23.00chs., 4th. rate, balance sandy loam 1st. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush.
 Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.10chs.
 August 18, 1911.

August 19: For solar observation see page 34 of these notes. At 0^h.04^m. p.m., l.m.t., I set off 12° 59' N. on the decl. arc, and at the cor. of secs. 4-5-8 and 9, observe the sun on the meridian, the resulting lat. is 37° 48' N. Thence I run
 N. 0° 03' W., on random line bet. secs. 4 and 5.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.96 Intersect N. bdy. of Tp. at the re-established cor. of secs. 4-5-32 and 33, heretofore described.
 Thence I run
 S. 0° 03' E., on true line bet. secs. 4 and 5.

Subdivision of T.35 S., R.25 E.

CHAINS

- Over rolling mesa, through heavy timber.
- 16.46 Leave timber, bears NE. and SW. Enter dense undergrowth.
- 39.96 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 5 in W. half, and S 4 in E. half; dig pits 18x18x12ins., N. and S. of post 3ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
- 79.96 The cor. of secs. 4-5-8 and 9.
- Land, rolling.
- Soil, sandy loam, 1st. rate.
- Subsoil, sandstone.
- Timber, cedar and pinyon.
- Undergrowth, sagebrush.
- Heavily timbered land or land covered with dense undergrowth on 79.96chs.

August 19, 1911.

Eben B. Andrews
 U.S. Transitman.

August 16: At 8h. 04m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on the lat. arc, $14^{\circ}00'N.$ on the decl. arc, and at the re-established standard cor. of secs. 31 and 32, determine a meridian with the solar. (Corner heretofore described)

Thence I run

N. $0^{\circ}03'W.$ bet. secs. 31 and 32.

Descend over mountainous land, through heavy timber.

- 36.80 Ravine, 50ft. deep, 125ft. wide, drains SW.
- 40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 31 in W. half, and S 32 in E. half; from which
- A cedar 7ins. dia., bears, S. $27^{\circ}31'E.$, 24 lks. dist., marked $\frac{1}{4}$ S 32 BT.
- A pinyon 6ins. dia., bears, N. $41^{\circ}08'W.$, 21 lks. dist., marked $\frac{1}{4}$ S 31 BT.
- 80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground

CHAINS

for cor. of secs. 29-30-31 and 32, marked on brass cap,
 T 35 S S 30 in NW.
 R 25 E S 29 in NE.
 S 32 in SE. and
 S 31 in SW. quadrant; from which
 A pinyon 10 ins. dia., bears, N. 53° 38' E., 46 lks. dist.,
 marked T 35 S R 25 E S 29 BT.
 A pinyon 8 ins. dia., bears, S. 13° 14' E., 41 lks. dist.,
 marked T 35 S R 25 E S 32 BT.
 A pinyon 8 ins. dia., bears, S. 34° 31' W., 51 lks. dist.,
 marked T 35 S R 25 E S 31 BT.
 A pinyon 9 ins. dia., bears, N. 62° 00' W., 47 lks. dist.,
 marked T 35 S R 25 E S 30 BT.
 Land, mountainous.
 Soil, sandy loam and loose rock, 3d. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Mountainous, heavily timbered land on 80.00 chs.

- East on random line bet. secs. 29 and 32.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.04 Intersect N. and S. line 2 lks. N. of the cor. of secs.
 28-29-32 and 33,
 Thence I run
 N. 89° 59' W., on true line bet. secs. 29 and 32.
 Descend, through heavy timber.
- 2.08 Top of sandstone ledges, 200 ft. high, bear N. and S.
 Abrupt descent.
- 5.20 Foot of ledges. Gradual descent.
- 11.32 Sandstone boulder, 25x20x18 ft. on line.
- 37.55 Ravine, 45 ft. deep, drains NE.
- 40.02 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 29 in N. half,
 and S 32 in S. half; from which
 A pinyon 7 ins. dia., bears, N. 2° 08' E., 5 lks. dist.,

CHAINS

marked $\frac{1}{4}$ S 29 BT.

A cedar 6ins. dia., bears, S.25°15'E., 26 lks. dist.,

marked $\frac{1}{4}$ S 32 BT.

80.04 The cor. of secs. 29-30-31 and 32.

Land, mountainous.

Soil, sandy loam and loose rock, 3d. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous, heavily timbered land on 80.04chs.

August.16: At 0h.04m., p.m., l.m.t., I set off 13°56'N. on the decl. arc, and at the cor. of secs. 29-30-31 and 32, observe the sun on the meridian, the resulting lat. is 37°44'N.

Thence I run

west on random line bet. secs. 30 and 31.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.67 Intersect W.bdy. of Tp. 2 lks. N. of the re-established cor. of secs. 25-30-31 and 36, heretofore described.

Thence I run

N.89°59'E., on true line bet. secs. 30 and 31.

Descend over mountainous land, through heavy timber.

39.67 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 30 in N. half, and S 31 in S. half; from which

A pinyon 8ins. dia., bears, N.20°08'E., 18 lks. dist., marked $\frac{1}{4}$ S 30 BT.

A pinyon 9ins. dia., bears, S.40°10'W., 82 lks. dist., marked $\frac{1}{4}$ S 31 BT.

50.59 Top of sandstone ledges, 200ft. high, bear NE. and SW.

Abrupt descent.

63.45 Ravine, 50ft. deep, 200ft. wide, in the bottom of Horsehead Canon, drains SW.

Abrupt ascent over sandstone ledges.

76.36 Top of ledges, 200ft. high, bear NE. and SW.

CHAINS

Gradual ascent.

79.67

The cor. of secs. 29-30-31 and 32.

Land, rolling.

Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous, heavily timbered land on 79.67chs.

N.0°03'W., bet. secs. 29 and 30.

Descend over mountainous land, through heavy timber.

12.20

Top of sandstone ledges, 200ft. high, bear NE. and SW.

Abrupt descent.

16.22

Ravine, 50ft. deep, 200ft. wide in the bottom of Horse-head Canon, drains SW.

Abrupt ascent over sandstone ledges.

20.45

Top of ledges, 200ft. high, bear NE. and SW.

Gradual ascent.

32.45

Spur, projects 3chs. E.

Descend.

40.00

Set an iron post 3ft. long, 1in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ ' S 30 in W. half, and S 29 in E. half; from whichA cedar 14ins. dia., bears, S.60°09'E., 32 lks. dist., marked $\frac{1}{4}$ S 29 BT.A cedar 18ins. dia., bears, N.88°10'W., 11 lks. dist., marked $\frac{1}{4}$ S 30 BT.

43.08

Ravine, 40ft. deep, 150ft. wide, drains SE.

Ascend.

80.00

Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 19-20-29 and 30, marked on brass cap,

T 35 S S 19 in NW.

R 25 E S 20 in NE.

S 29 in SE. and

S 30 in SW. quadrant; from which

A cedar 6ins. dia., bears, N.56°02'E., 21 lks. dist., marked T 35 S R 25 E S 20 BT.

Subdivision of T.35 S., R.25 E.

CHAINS

A pinyon 7ins.dia., bears, S.74°51'E., 38 lks. dist.,
marked T 35 S R 25 E S 29 BT.

A pinyon 10ins.dia., bears, S.67°10'W., 65 lks. dist.,
marked T 35 S R 25 E S 30 BT.

A cedar 8ins.dia., bears, N.43°02'W., 25 lks. dist.,
marked T 35 S R 25 E S 19 BT.

Land, mountainous.

Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous, heavily timbered land on 80.00chs.

August 16, 1911.

August 17: At 8h.04m., a.m., l.m.t., I set off 37°45'N. on
the lat. arc, 13°41'N. on the decl. arc, and at the cor. of
secs. 19-20-29 and 30, determine a meridian with the
solar. Thence I run

S.89°59'E., on random line bet. secs. 20 and 29.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.96 Intersect N. and S. line 11 lks. S. of the cor. of secs.
20-21-28 and 29.

Thence I run

S.89°56'W., on true line bet. secs. 20 and 29.

Descend over mountainous land, through heavy timber.

4.22 Top of sandstone ledges, 200ft. high, bear NE. and SW.
Abrupt descent.

7.48 Foot of ledges.

Gradual descent.

39.98 Set an iron post 3ft. long, 1 in.dia., 26ins in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 20 in N. half,
and S.29 in S. half; from which

A pinyon 8ins.dia., bears, N.64°45'W., 30 lks. dist.,
marked $\frac{1}{4}$ S 20 BT.

A cedar 10ins.dia., bears, S.34°48'W., 93 lks. dist.,
marked $\frac{1}{4}$ S 29 BT.

CHAINS

- 44.25 Top of sandstone ledges, 200ft. high, bear NE. and SW.
Abrupt descent.
- 51.60 Ravine, 50ft. deep, 200ft. wide, in the bottom of Horsehead
Canon, drains SW.
Abrupt ascent over sandstone ledges.
- 58.82 Top of ledges, 200ft. high, bear NE. and SW.
Gradual ascent.
- 79.96 The cor. of secs. 19-20-29 and 30.
Land, mountainous.
Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Mountainous; heavily timbered land on 79.96chs.
-
- S. 89°59'W., on random line bet. secs. 19 and 30.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.32 Intersect W. bdy. of Tp. 16 lks. S. of the re-established
cor. of secs. 19-24-25 and 30, heretofore described.
Thence I run
S. 89°54'E., on true line bet. secs. 19 and 30.
Descend over mountainous land, through heavy timber.
- 18.02 Top of sandstone ledges, 150ft. high, bear NW. and SE.
Abrupt descent.
- 29.34 Ravine, 50ft. deep, 185ft. wide, drains SE.
Abrupt ascent over sandstone ledges.
- 33.90 Top of ledges, 150ft. high, bear NW. and SE. Ascend.
- 34.17 Spur, projects 50 lks. S.
Abrupt descent over sandstone ledges, 150ft. high, bear
NE. and SW.
- 39.32 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 19 in N. half,
and S 30 in S. half; from which
A cedar 8ins. dia., bears, N. 40°02'E., 15 lks. dist.,
marked $\frac{1}{4}$ S 19 BT.
A pinyon 7ins. dia., bears, S. 25°08'W., 35 lks. dist.,
marked $\frac{1}{4}$ S 30 BT.

CHAINS

42.24 Foot of ledges.
 Gradual descent.
 79.32 The cor. of secs. 19-20-29 and 30.
 Land, mountainous.
 Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Mountainous, heavily timbered land on 79.32chs.

August 17: At 10 h. 04 m., p.m., l.m.t., I set off $13^{\circ}37'N.$ on the decl. arc, and at the cor. of secs. 19-20-29 and 30, observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N.$ Thence I run
 $N.0^{\circ}03'W.$, bet. secs. 19 and 20.
 Ascend over mountainous land, through heavy timber.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 19 in W. half, and S 20 in E. half; from which
 A pinyon 6ins. dia., bears, $S.78^{\circ}42'E.$, 24 lks. dist., marked $\frac{1}{4}$ S 20 BT.
 A pinyon 8ins. dia., bears, $S.89^{\circ}49'W.$, 39 lks. dist., marked $\frac{1}{4}$ S 19 BT.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 17-18-19 and 20, marked on brass cap,
 T 35 S S 18 in NW.
 R 25 E S 17 in NE.
 S 20 in SE. and
 S 19 in SW. quadrant; from which
 A pinyon 9ins. dia., bears, $N.45^{\circ}55'E.$, 79 lks. dist., marked T 35 S R 25 E S 17 BT.
 A cedar 10ins. dia., bears, $S.46^{\circ}31'E.$, 53 lks. dist., marked T 35 S R 25 E S 20 BT.
 A pinyon 10ins. dia., bears, $S.68^{\circ}26'W.$, 29 lks. dist., marked T 35 S R 25 E S 19 BT.
 A pinyon 7ins. dia., bears, $N.51^{\circ}10'W.$, 37 lks. dist.,

CHAINS

marked T 35 S R 25 E S 18 BT.

Land, mountainous.

Soil, sandy loam and loose rock, 3d. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous, heavily timbered land on 80.00chs.

August 17, 1911.

August 18: At 8h.04m., a.m., 1.m.t., I set off $37^{\circ}46'N.$ on the lat. arc, $13^{\circ}22'N.$ on the decl. arc, and at the cor. of secs. 17-18-19 and 20, determine a meridian with the solar. Thence I run

$N.89^{\circ}56'E.$, on random line bet. secs. 17 and 20.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.92 Intersect N. and S. line 4.1ks. N. of the cor. of secs. 16-17-20 and 21.

Thence I run

$S.89^{\circ}58'W.$, on true line bet. secs. 17 and 20.

Descend over mountainous land, through heavy timber.

35.80 Top of sandstone ledges, 170ft. high, bear NE. and SW. Abrupt descent.

39.96 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 17 in N. half, and S 20 in S. half; from which

A pinyon 8ins. dia., bears, $N.10^{\circ}20'E.$, 46 lks. dist., marked $\frac{1}{4}$ S 17 BT.

A cedar 9ins. dia., bears, $S.30^{\circ}08'W.$, 32 lks. dist., marked $\frac{1}{4}$ S 20 BT.

40.82 Ravine, 45ft. deep, 150ft. wide, in the bottom of Horse-head Canon, drains SW.

Abrupt ascent over sandstone ledges.

43.67 Top of ledges, 170ft. high, bear NE. and SW.

Gradual ascent.

52.84 Ravine, 80ft. deep, 200ft. wide, drains SE.

79.92 The cor. of secs. 17-18-19 and 20.

Land, mountainous.

CHAINS

Soil,sandy loam, loose rock and sandstone ledges,4th.rate.
 Subsoil,sandstone.
 Timber,cedar and pinyon.
 Mountainous, heavily timbered land on 79.92chs.

August 18: At 10.h.04m.,p.m.,l.m.t., I set off 13°18'N. on the decl. arc, and at the cor. of secs. 17-18-19 and 20, observe the sun on the meridian, the resulting lat. is 37°46'N. Thence I run

N.89°54'W.,on random line bet. secs. 18 and 19.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.00 Intersect W. bdy. of Tp. 4 lks. S. of the re-established cor. of secs. 13-18 19 and 24,heretofore described.

Thence I run

S.89°52'E.,on true line bet. secs. 18 and 19.

Ascend over mountainous land, through heavy timber.

11.00 Begin abrupt ascent over sandstone ledges.

14.70 Top of ledges,200ft. high,bear NE. and SW.

Ascend over mesa.

29.24 Ridge,bears NE. and SW.

Descend.

39.00 Set an iron post 3ft. long,1 in.dia.,26ins. in the ground for $\frac{1}{4}$ sec. cor.,marked on brass cap, $\frac{1}{4}$ S.18 in N. half, and S.19 in S. half;from which

A cedar 6ins.dia.,bears, N.21°16'W.,17 lks. dist., marked $\frac{1}{4}$ S.18 BT.

A cedar 5ins.dia.,bears, S.32°48'E.,47 lks. dist., marked $\frac{1}{4}$ S.19 BT.

66.77 Top of sandstone ledges,200ft. high,bear NE. and SW.

Abrupt descent.

69.40 Foot of ledges.

Gradual descent.

79.00 The cor. of secs. 17-18-19 and 20.

Land,mountainous.

Soil,sandy loam, loose rock and sandstone ledges,4th.rate.

CHAINS

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous, heavily timbered land on 79.00chs.

August 18, 1911.

August 19: At 8h.04m., a.m., l.m.t., I set off $37^{\circ}46'N.$ on the lat. arc, $13^{\circ}02'N.$ on the decl. arc, and at the cor. of secs. 17-18-19 and 20, determine a meridian with the solar. Thence I run

$N.0^{\circ}03'W.$, bet. secs. 17 and 18.

Ascend over mountainous land, through heavy timber.

11.26 Begin abrupt ascent over sandstone ledges.

14.40 Top of ledges, 200ft. high, bear NE. and SW.

Ascend over mesa.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 18 in W. half, and S 17 in E. half; from which

A pinyon 6ins. dia., bears $S.61^{\circ}22'E.$, 4 lks. dist., marked $\frac{1}{4}$ S 17 BT.

A pinyon 7ins. dia., bears, $S.47^{\circ}00'W.$, 30 lks. dist., marked $\frac{1}{4}$ S 18 BT.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 7-8-17 and 18, marked on brass cap, T 35 S S 7 in NW.

R 25 E S 8 in NE.

S 17 in SE. and

S 18 in SW. quadrant; from which

A cedar 10ins. dia., bears, $N.34^{\circ}10'E.$, 20 lks. dist., marked T 35 S R 25 E S 8 BT.

A pinyon 6ins. dia., bears, $S.44^{\circ}52'E.$, 16 lks. dist., marked T 35 S R 25 E S 17 BT.

A pinyon 10ins. dia., bears, $S.40^{\circ}48'W.$, 48 lks. dist., marked T 35 S R 25 E S 18 BT.

A pinyon 6ins. dia., bears, $N.60^{\circ}18'W.$, 58 lks. dist., marked T 35 S R 25 E S 7 BT.

CHAINS

Land, mountainous and rolling.
 Soil, sandy loam, loose rock and sandstone ledges on first
 15.00chs., 4th. rate, balance sandy loam, 2nd. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Mountainous land or heavily timbered land on 80.00chs.

N. 89°58'E., on random line bet. secs. 8 and 17.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.86 Intersect N. and S. line 11 lks. N. of the cor. of secs.
 8-9-16 and 17.

Thence I run

N. 89°57'W., on true line bet. secs. 8 and 17.

Ascend over mountainous land, through heavy timber.

37.10 Begin abrupt ascent over sandstone ledges.

39.70 Top of ledges, 150ft. high, bear NE. and SW.

Rolling ascent over mesa.

39.93 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 8 in N. half,
 and S 17 in S. half; from which

A cedar 10ins. dia., bears, N. 31°14'E., 81 lks. dist.,
 marked $\frac{1}{4}$ S 8 BT.

A pinyon 5ins. dia., bears, S. 70°35'E., 15 lks. dist.,
 marked $\frac{1}{4}$ S 17 BT.

79.86 The cor. of secs. 7-8-17 and 18.

Land, mountainous and rolling.

Soil, sandy loam, loose rock and sandstone ledges, on first
 41.00chs., 4th. rate, balance sandy loam, 2nd. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous or heavily timbered land on 79.86chs.

August 19: At 0 h. 0^hm., p.m., 1.m.t., I set off 12°59'N. on
 the decl. arc, and at the cor. of secs. 7-8-17 and 18,
 observe the sun on the meridian, the resulting lat. is

CHAINS

37°47'N. Thence I run
 N.89°52'W., on random line bet. secs. 7 and 18.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 78.42 Intersect W.bdy. of Tp. 23 lks. N. of the point for the
 re-established cor. of secs. 7-12-13 and 18, which is
 witnessed 250 lks. S. of true point, heretofore described.
 Thence I run
 N.89°58'E., on true line bet. secs. 7 and 18.
 Abrupt ascent over sandstone ledges, through heavy timber.
 15.62 Top of ledges, 200ft. high, bear NE. and SW.
 Gradual ascent.
 38.42 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 7 in N. half,
 and S 18 in S. half; from which
 A pinyon 7ins. dia., bears, N.56°00'W., 74 lks. dist.,
 marked $\frac{1}{4}$ S 7 BT.
 A pinyon 8ins. dia., bears, S.64°07'E., 15 lks. dist.,
 marked $\frac{1}{4}$ S 18 BT.
 49.88 Begin abrupt ascent over sandstone ledges.
 52.54 Top of ledges, 175ft. high, bear NE. and SW.
 Rolling ascent over mesa,
 74.00 Ridge, bears N. and S. Rolling descent over mesa.
 78.42 The cor. of secs. 7-8-17 and 18.
 Land, mountainous and rolling.
 Soil, sandy loam, loose rock and sandstone ledges on first
 53.00chs., 4th. rate, balance sandy loam, 2nd. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Mountainous or heavily timbered land on 78.42chs.

August 19, 1911.

August 21: At 8h.03m., a.m., l.m.t., I set off 37°47'N. on
 the lat. arc, 12°23'N. on the decl. arc, and at the cor.
 of secs. 7-8-17 and 18, determine a meridian with the
 solar. Thence I run
 N.0°03'W., bet. secs. 7 and 8.

CHAINS	<p>Rolling ascent over mesa, through heavy timber.</p> <p>15.08 Ridge, bears NE. and SW. Rolling descent.</p> <p>36.75 Top of sandstone ledges, 200ft. high, bear NE. and SW. Abrupt descent.</p> <p>40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 7 in W. half, and S 8 in E. half; from which</p> <p style="padding-left: 40px;">A cedar 7ins. dia., bears, N. $42^{\circ}28'E$, 14 lks. dist., marked $\frac{1}{4}$ S. 8 BT.</p> <p style="padding-left: 40px;">A pinyon 9ins. dia., bears, N. $86^{\circ}24'W$, 85 lks. dist., marked $\frac{1}{4}$ S. 7 BT.</p> <p>41.65 Foot of ledges. Gradual descent.</p> <p>69.65 Leave timber, bears NE. and SW. Enter dense undergrowth.</p> <p>80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 5-6-7 and 8, marked on brass cap,</p> <p style="padding-left: 40px;">T 35 S 3 6 in NW.</p> <p style="padding-left: 40px;">R 25 E S 5 in NE.</p> <p style="padding-left: 40px;">S 8 in SE. and</p> <p style="padding-left: 40px;">S 7 in SW. quadrant; raise a mound of stone 2ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.</p> <p>Land, mountainous and rolling.</p> <p>Soil, sandy loam on first 35.00chs., 2nd, rate, balance sandy loam, loose rock and sandstone ledges, 4th. rate.</p> <p>Subsoil, sandstone.</p> <p>Timber, cedar and pinyon.</p> <p>Undergrowth, sagebrush.</p> <p>Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.00chs.</p>
40.00	<p>S. $89^{\circ}57'E$, on random line bet. secs. 5 and 8.</p> <p>Set temp. $\frac{1}{4}$ sec. cor.</p>
80.08	<p>Intersect N. and S. line 16 lks. S. of the cor. of secs. 4-5-8 and 9.</p> <p>Thence I run</p> <p style="padding-left: 40px;">S. $89^{\circ}56'W$, on true line bet. secs. 5 and 8.</p>

CHAINS

- Rolling ascent over mesa, through dense undergrowth.
- 23.10 Leave dense undergrowth. Enter heavy timber, bears NW. and SE.
- 28.30 Ridge, bears NE. and SW. Rolling descent.
- 38.80 Leave heavy timber, bears NE. and SW. Enter dense undergrowth.
- 40.04 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 5 in N. half, and S 8 in S. half; from which
- A pinyon 6 ins. dia., bears, N. $84^{\circ}10'$ E., 148 lks. dist., marked $\frac{1}{4}$ S 5 BT.
- A pinyon 7 ins. dia., bears, S. $87^{\circ}30'$ E., 191 lks. dist., marked $\frac{1}{4}$ S 8 BT.
- 55.53 Top of sandstone ledges, 200ft. high, bear NE. and SW. Abrupt descent.
- 58.72 Foot of ledges. Gradual descent.
- 80.08 The cor. of secs. 5-6-7 and 8.
- Land, mountainous and rolling.
- Soil, sandy loam on first 55.00chs., 1st. rate, balance sandy loam, loose rock and sandstone ledges, 4th. rate.
- Subsoil, sandstone.
- Timber, cedar and pinyon.
- Undergrowth, sagebrush.
- Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.08chs.
- Note-At noon the sky was overcast. Latitude observation impossible.
- August 21, 1911.
-
- August 23: At 8h.03m., a.m., l.m.t., I set off $37^{\circ}48'$ N. on the lat. arc, $11^{\circ}43'$ N. on the decl. arc, and at the cor. of secs. 5-6-7 and 8, determine a meridian with the solar. Thence I run
- S. $89^{\circ}58'$ W., on random line bet. secs. 6 and 7.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 78.09 Intersect W. bdy. of Tp. 2 lks. N. of the re-established

CHAINS.

cor. of secs. 1-6-7 and 12, heretofore described.

Thence I run

N.89°57'E., on true line bet. secs. 6 and 7.

Descend over mountainous land, through heavy timber.

38.09 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 6 in N. half, and S 7 in S. half; from which

A pinyon 6 ins. dia., bears N.66°15'W., 5 $\frac{1}{2}$ lks. dist., marked $\frac{1}{4}$ S 6 BT.

A pinyon 5 ins. dia., bears S.45°00'W., 5 $\frac{1}{4}$ lks. dist., marked $\frac{1}{4}$ S. 7 BT.

43.50 Top of sandstone ledges 150ft. high, bear NE. and SW. Abrupt descent.

61.79 Ravine, 45ft. deep, 200ft. wide, in the bottom of Pearsons Canon, drains SW.

Abrupt ascent over sandstone ledges.

68.09 Top of ledges, 200ft. high, bear NE. and SW. Leave timber, bears NE. and SW. Enter dense undergrowth.

Gradual ascent.

78.09 The cor. of secs. 5-6-7 and 8.

Land, mountainous.

Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, heavily timbered land or land covered with dense undergrowth on 78.09chs.

August 23: At 10h.03m., p.m., 1.m.t., I set off 11°39'N. on the decl. arc, and at the cor. of secs. 5-6-7 and 8, observe the sun on the meridian, the resulting lat. is 37°48'N. Thence I run

N.0°03'W., on random line bet. secs. 5 and 6.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.92 Intersect N. bdy. of Tp. 4 lks. E. of the re-established

CHAINS

- cor. of secs. 5-6-31 and 32, heretofore described.
 Thence I run
 S.0°05'E., bet. secs. 5 and 6.
 Descend over mountainous land, through heavy timber.
- 22.18 Top of sandstone ledges, 50ft. high, bear NE. and SW. Leave
 timber, bears NE. and SW. Enter dense undergrowth.
 Abrupt descent.
- 27.20 Ravine, 30ft. deep, 100ft. wide, in the bottom of Pearsons
 Canon, drains SW.
 Abrupt ascent over sandstone ledges.
- 32.45 Top of ledges, 50ft. high, bear NE. and SW.
 Gradual ascent.
- 39.92 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 6 in W. half,
 and S 5 in E. half; raise a mound of stone 2ft. base, $1\frac{1}{2}$ ft.
 high W. of cor. Pits impracticable.
- 79.92 The cor of secs. 5-6-7 and 8.
 Land, mountainous.
 Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush.
 Mountainous land, heavily timbered land or land covered
 with dense undergrowth on 79.92chs.

August 23, 1911.

Melvin H. Heist
 U.S. Transitman.

GENERAL DESCRIPTION.

This township is broken in character, being a solid sandstone formation cut by deep canyons, along the sides of which the sandstone crops in solid and broken ledges. The benches along the sides of the canyons are rocky and generally have a thin layer of rocky soil on the solid sandstone. The mesas between the canyons have a layer of sandy loam from 12ins. to 36ins. deep, covering

the sandstone.

The only land suitable for agriculture is in the NE. cor. of the township, where the soil is a rich sandy loam, from 24ins. to 36ins. deep, covered with a dense growth of sagebrush and native grasses; the subsoil is sandstone, and this portion is suitable for dry farming.

The balance of the township is covered with a heavy growth of cedar and pinyon timber and native grasses, and is suitable for grazing.

There is no water in this township.

There are no settlers or roads in this township.

There are no indications of coal, oil or minerals found in this township.

Melvin H. Hunt

Eben B. Andrews
U.S. Transitter.

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FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 _____, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oaths of transitmen see book "Z" T. 32 S. R. 26 E.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191 _____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, March 19 _____, 191 _____

The foregoing field notes of the survey of the subdivisional lines of Township No. 35 South, Range No. 25 East of the Salt Lake Base and Meridian, Utah,

executed by Melvin D. Heist and Eben B. Andrew
their special instructions dated May 22, _____, 191 _____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Thomas Keel
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

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BOOK A-394

FIELD NOTES

RESURVEY

OF THE ~~SURVEY~~ OF THE

NORTH BOUNDARY OF T. 35 S., R 26 E.

Of the SALT LAKE BASE and Meridian,

in the State of UTAH.

EXECUTED BY

Melvin D. Heist and Eben B. Andrews.

in the capacity of U. S. ^{Transitmen} ~~Surveyors~~, under instructions dated May, 22, 1911,

issued by the United States Surveyor General to govern surveys included in

Group No. 12, which were approved by the Commissioner of the General Land

Office, June, 17, 1911, pursuant to authority contained in the Act of

Congress dated _____, 1911.

Survey commenced September, 3, 1911.

Survey completed September, 5, 1911.

Res. 4-14-72 ✓ closing 32.23 ✓

BOOK A-394

INDEX DIAGRAM.

Township 35 SOUTH, Range 26 EAST.

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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Survey commenced September 3, 1911, and executed with the instrument described in book "D" of this survey.

I begin at the re-established cor. of Tps. 34 and 35 S., Rs. 25 and 26 E., heretofore described, in approximate lat. $37^{\circ}49'N.$, long. $109^{\circ}09'27''W.$

I examine the adjustments of the transit and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At 4h.00m., p.m., l.m.t., I set off $37^{\circ}49'N.$ on the lat. arc, $7^{\circ}43'N.$ on the decl. arc, and determine with the solar a meridian and mark the point thereof, on a stone firmly set in the ground 5chs. N. of the cor.

At 8h.44m., p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with instructions in the Manual and mark a point in the line thus determined on a peg driven in the ground 5chs. N. of the cor.

September 3, 1911,

September 4: At 7 a.m., I lay off the azimuth of Polaris, $1^{\circ}29'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.2 ins. west of the mark determined by the solar.

At 8h.00m., a.m., l.m.t., I set off $37^{\circ}49'N.$ on the lat. arc, $7^{\circ}29'N.$ on the decl. arc, and mark the meridian thus determined, by a cross on the stone already set 5chs. N. of my station; this mark falls 0.2 ins. east of the meridian established by the Polaris observations.

The solar apparatus, by a.m. and p.m. observations, defines the position of the meridian, about $0'11''E.$ and $0'11''W.$ of meridian established by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

Resurvey of North boundary of T. 35 S., R. 26 E.

CHAINS

The magnetic bearing of the meridian at 8h.a.m., is N.15°35'W., the angle thus determined gives the mag. decl. 15°35'E.

From the re-established cor. of Tps. 34 and 35 S., Rs. 25 and 26 E., heretofore described,

I run East on true line resurveying bet. secs. 6 and 31. Over rolling mesa, through dense undergrowth.

19.60 Enter scattering timber.

26.00 Leave scattering timber.

40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 31 in N. half, and S 6' in S. half; dig pits 18x18x12 ins., E. and W. of post, 3ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

After diligent search no trace can be found of the old $\frac{1}{4}$ sec. cor.

48.40 Leave dense undergrowth, enter heavy timber, bears, N. and S.

80.00 Set an iron post 3ft. long 3 ins. dia., 24 ins. in the ground for re-established cor. of secs. 5-6-31 and 32, marked on brass cap,

T 34 S S 31 in NW.

R 26 E S 32 in NE.

R 26 E S 5 in SE.; and

T 35 S S 6 in SW. quadrant; from which

A cedar 13 ins. dia., bears, N. 47°00'E, 50 lks. dist., marked T 34 S R 26 E S 32 BT.

A cedar 14 ins. dia., bears, S. 59°10'E, 55 lks. dist., marked T 35 S R 26 E S 5 BT.

A pinyon 5 ins. dia., bears, S. 55°05'W, 12 lks. dist., marked T 35 S R 26 E S 6 BT.

A cedar 8 ins. dia., bears, N. 34°00'W, 20 lks. dist., marked T 34 S R 26 E S 31 BT.

After diligent search no trace can be found of the old

Resurvey of the North boundary of T 35 S., R 26 E.

CHAINS

cor. of secs. 5-6-31 and 32.

Land, rolling.

Soil, sandy loam, 1 st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Densely timbered land or land covered with dense undergrowth on 80.00chs.

At 11h 59m, a.m., l.m.t., I set off $7^{\circ}24'N$. on the decl. arc, and at the cor. of secs. 5-6-31 and 32, observe the sun on the meridian, the resulting lat. is $37^{\circ}49'N$.

Thence I run

East on true line resurveying bet. secs. 5 and 32. Over rolling mesa, through heavy timber.

2.71 Pinyon 36ins. dia. on line, marked 2 notches on E. and W.

6.00 Leave heavy timber, bears, N. and S., enter dense undergrowth.

40.00 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 32 in N. half, and S 5 in S. half; dig pits 18x18x12 ins., E. and W. of post 3ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

After diligent search no trace can be found of the old $\frac{1}{4}$ sec. cor.

70.90 Enter scattering timber.

80.00 Set an iron post 3ft. long, 3ins. dia., 24ins. in the ground for re-established cor. of secs. 4-5-32 and 33, marked on brass cap,

T 34 S S 32 in NW.

R 26 E S 33 in NE.

R 26 E S 4 in SE. and

T 35 S S 5 in SW. quadrant; from which

A cedar 6ins. dia., bears, N. $11^{\circ}02'E$, 189 lks. dist., marked T 34 S R 26 E S 33 BT.

Resurvey of the North boundary of T.35 S., R.26 E.

CHAINS

A cedar 5ins.dia., bears, S.16°35'E., 124 lks. dist., marked T 35 S R 26 E S[√]4 BT.

A cedar 10ins.dia., bears, S.37°30'W., 38 lks. dist., marked T 35 S R 26 E S[√]5 BT.

A cedar 14ins.dia., bears, N.35°02'W., 76 lks. dist., marked T 34 S R 26 E S[√]32 BT.

After diligent search no trace can be found of the old cor. of secs. 4-5-32 and 33.

Land, rolling.

Soil, sandy loam, 1 st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Densely timbered land or land covered with dense undergrowth on 80.00chs.

Thence I run

East on true line resurveying bet. secs. 4 and 33.

Over rolling mesa, through scattering timber and dense undergrowth.

18.00 Leave dense undergrowth, enter heavy timber, bears, N. and S.

27.38 Top of sandstone ledges, 100ft. high, bear N. and S.

Abrupt descent.

33.58 Cottonwood Canyon, 50ft. deep, 150 ft. wide, drains S.

Abrupt ascent over sandstone ledges.

39.58 Top of ledges, 100ft. high, bear, N. and S. Thence over rolling mesa.

40.00 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 33[√] in N. half, and S 4[√] in S. half; from which

A cedar 12ins.dia., bears, N.42°30'W., 11 lks. dist., marked $\frac{1}{4}$ S 33[√] BT.

A pinyon 13ins.dia., bears, S.81°32'E., 40 lks. dist., marked $\frac{1}{4}$ S 4[√] BT.

Resurvey of the North boundary of T. 35 S., R 26 E.

CHAINS

After diligent search no trace can be found of the old $\frac{1}{4}$ sec. cor.

65.00 Leave heavy timber, bears, N, and S. Enter dense undergrowth.

80.00 Set an iron post 3ft. long 2ins. dia., 24ins. in the ground for re-established cor. of secs. 3-4-33 and 34, marked on brass cap,

T 34 S S 33 in NW.

R 26 E S 34 in NE.

R 26 E S 3 in SE. and

T 35 S S 4 in SW. quadrant; dig pits, 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist.; and raise a mound of earth 4ft. base, 2ft. high W. of cor.

After diligent search no trace can be found of the old sec. cor.

Land, mountainous and rolling.

Soil, sandy loam on mesa, 1 st. rate, balance sandstone ledges, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, densely timbered land or land covered with dense undergrowth on 80.00chs.

September 4, 1911.

September 5: At 7h⁵⁹m, a.m., l.m.t., I set off 37°49' N. on the lat. arc, 7°06' N. on the decl. arc, and determine a meridian with the solar.

Thence I run

East on true line resurveying bet, secs. 3 and 34. Over rolling mesa, through dense undergrowth.

40.00 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for re-established $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 34 in N. half, and S 3 in S half; dig pits 18x18x12 ins. E. and W. of post 3ft. dist.; and raise a mound of earth

CHAINS

4 ft. base, 2 ft. high, N. of cor.

After diligent search no trace can be found of the old $\frac{1}{4}$ sec, cor.

55.30 Leave dense undergrowth, enter heavy timber, bears, N. and S.

80.00 Set an iron post 3ft. long, 3ins. dia., 24ins. in the ground for re-established cor. of secs. 2-3-34 and 35, marked on brass cap,

T 34 S S 34 in NW.

R 26 E S 35 in NE.

R 26 E S 2 in SE. and

T 35 S S 3 in SW. quadrant; from which

A pinyon 14ins. dia., bears, N. $6^{\circ}50'$ E., 73 lks. dist., marked T 34 S R 26 E S 35 BT.

A pinyon 16ins. dia., bears, S. $89^{\circ}55'$ E., 44 lks. dist., marked T 35 S R 26 E S 2 BT.

A pinyon 8ins. dia., bears, S. $77^{\circ}10'$ W., 73 lks. dist., marked T 35 S R 26 E S 3 BT.

A pinyon 5ins. dia., bears, N. $51^{\circ}35'$ W., 57 lks. dist., marked T 34 S R 26 E S 34 BT.

After diligent search no trace can be found of the old cor. of secs. 2-3-34 and 35.

Land, rolling.

Soil, sandy loam, 1 st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Densely timbered land or land covered with dense undergrowth on 80.00chs.

September 5: At 11h⁴⁵m, a.m., 1.m.t. I set off $7^{\circ}02'$ N. on the decl. arc, and at the cor. of secs. 2-3-34 and 35, observe the sun on the meridian, the resulting lat. is $37^{\circ}49'$ W.

Thence I run

Resurvey of the North boundary of T. 35 S., R 26 E.

CHAINS

East resurveying bet, secs, 2 and 35.

Along top of ledges, through heavy timber.

1.55 Top of sandstone ledges, 100ft. high, bear NE. and SW.

Abrupt descent.

10.90 Leave timber, bears, NE and SW.

12.50 Ravine, 30ft. deep, 100-ft. wide, in the bottom of Coalbed Canon, drains SW.

Ascend.

14.72 Intersect Utah-Colorado state line at N.0°03'W., 33.23chs. from the 53 M. cor., which is a sandstone marked and witnessed as described by the surveyor general.

Set an iron post 3ft. long 3ins. dia., 24ins. in the ground for closing cor. of Tps. 34 and 35 S., R 26 E., marked on brass cap,

C in E. half,

U CC in W. half,

T 34 S R 26 E S 35 in NW. and

T 35 S R 26 E S 2 in SW. quadrant; dig pits, 30x24x12ins. crosswise on each line, N. and S., 4ft., and W. of post 8 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high W. of cor.

Land, mountainous.

Soil, sandstone ledges and loose rock, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Mountainous land or land covered with dense timber on 14.72chs.

September 5, 1911.

Eben B. Andrews
U.S. Transitman.

For general description see subdivision of T. 35 S., R. 26 E.

BOUNDARIES OF T. 35 S., R. 26 E.

Latitudes, departures and closing errors.

Re-survey of the North boundary of T. 25 S., R. 26 E.

Line Designated	True bearing	Distance	Latitude		Departure	
			N.	S.	E.	W.
		Chd.	Chd.	Chd.	Chd.	Chd.
West Bay.	South.	479.89		479.89		
South Bay.	East.	335.76			335.76	
East Bay.	N. 0° 09' 12".	209.02	209.02			.58
	North.	80.52	80.52			
	S. 0° 09' 12".	80.71	80.71			.69
	N. 0° 03' 12".	113.83	113.83			.16
North Bay.	West.	338.73			338.73	.29
Convergence						.29
Totals,			486.09	479.89	335.76	338.73
			479.89		335.76	

error in lat. .29' error in dep. .16'

Chas. B. Anderson

Melvin W. Hunt
 U.S. GEOLOGICAL SURVEY

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191____, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of transmission see Book 222 T. 32 S. E. 26 N.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction, and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Salt Lake City, Utah, March 19, 191____

The foregoing field notes of the survey of the North Boundary of Township No. 3 South, Range No. 26 East of the Salt Lake Base and Meridian, Utah,

executed by _____ JOHN B. ANDREWS under his special instructions dated _____ May 22, _____ 191____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Thomas Hill
U. S. Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.

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BOOK A-394

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FIELD NOTES

RESURVEY

OF THE SURVEY OF THE

SEVENTH STANDARD PARALLEL SOUTH, THROUGH RANGE 26 EAST.

Of the SALT LAKE BASE and Meridian,

in the State of UTAH.

EXECUTED BY

Melvin D. Heist and Eben B. Andrews,

Transitmen

in the capacity of U. S. Surveyors, under instructions dated May, 22, 1911,

issued by the United States Surveyor General to govern surveys included in

Group No. 12, which were approved by the Commissioner of the General Land

Office, June 17, 1911, pursuant to authority contained in the Act of

Congress dated 1911

Survey commenced September 5, 1911

Survey completed September 8, 1911

Box 4-15-70 Spring 45-00

BOOK A-394

INDEX DIAGRAM.

Township 35 S., Range 26 E.

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Resurvey Seventh Standard Parallel South, Through Range 26 East.

Survey commenced September 5, 1911, and executed with the instrument described in book "D" of this survey.

I begin at the re-established standard corner of Tps. 35S., Rs. 25 and 26 E., heretofore described, in approximate latitude $37^{\circ}43'N.$, longitude $109^{\circ}09'27''W.$

I examine the adjustments of the transit and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observation on Polaris, I proceed as follows:

At 3h.59m.p.m., l.m.t., I set off $37^{\circ}43'N.$ on lat. arc, $6^{\circ}59'N.$ on decl. arc, and determine with the solar a meridian and mark the point thereof, on a stone firmly in the ground 5chs. N. of the corner.

At 8h.37m.p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with instructions in the Manual and mark a point in the line thus determined on a peg driven in the ground 5chs. N. of the corner.

September 5, 1911.

September 6: At 7a.m., I lay off the azimuth of Polaris, $1^{\circ}28'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.2 ins. west of the mark determined by the solar.

At 7h.59m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on the lat. arc, $6^{\circ}44'N.$ on the decl. arc, and mark the meridian thus determined, by a cross on the stone already set 5chs. N. of my station; this mark falls 0.2 ins. west of the meridian established by the Polaris observation.

The solar apparatus, by a.m. and p.m. observations, defines positions for the meridian, about 0'11" east and 0'11" west, respectively, of the meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

Resurvey Seventh Standard Parallel South, Through Range 26 East.

CHAINS

The magnetic bearing of the meridian at 8h.a.m., is
 N.15°35'W., the angle thus determined gives the mag. decl.
 15°35'E.

From the re-established standard Tp. cor. already described
 I run

East resurveying on S. bdy. sec.31.

Ascend over mountainous land, through heavy timber.

5.75 Begin abrupt ascent over sand stone ledges.

11.65 Top of ledges, 100 ft. high, bear N.E. and S.W.

Gradual ascent over mesa.

Difference between measurement of 40.00chs. by two sets of
 chainmen is 6lks.; position of middle point

By 1st. set, 39.97chs.

By 2nd. set 40.03chs.; the mean of which is

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground
 for re-established standard $\frac{1}{4}$ sec. cor., marked on brass
 cap, $\frac{1}{4}$ S 31 on N. half, from which

A pinyon, 7 ins. dia., bears N.41°40'W., 29 lks. dist.,
 marked S C $\frac{1}{4}$ S 31 BT.

A cedar 5 ins. dia., bears N.3°50'E., 230 lks. dist.,
 marked S C $\frac{1}{4}$ S 31 BT.

After diligent search no trace can be found of old
 standard $\frac{1}{4}$ sec. cor.

At 11h.59m.a.m., l.m.t., I set off 6°40'N. on decl. arc,
 and observe the sun on the meridian, the resulting lat.
 is 37°43'N.

57.10 Ridge, bears N. and S.

Descend.

69.65 Leave heavy timber, bears N. and S., enter scattering timber
 and dense undergrowth.

Difference between measurement of 80.00chs. by two sets
 of chainmen is 10 lks.; position of middle point

By 1st, set 79.95chs.

By 2nd. set 80.05chs.; the mean of which is

80.00 Set an iron post 3ft. long, 3 ins. dia., 24 ins. in the ground
 for re-established standard cor. of secs. 31 and 32,

Resurvey Seventh Standard Parallel South, Through Range 26 East.

CHAINS

marked on brass cap

T 35 S S31¹/₂ in N.W. and

R 26 E S 32 in N.E. quadrant, from which

A cedar 7 ins. dia., bears N. 50° 05' W., 204 lks. dist.,
marked T 35 S R 26 E S 31¹/₂ BT.

A cedar 6 ins. dia., bears N. 72° 10' E., 237 lks. dist.,
marked T 35 S R 26 E S 32 BT.

After diligent search no trace can be found of old standard
sec. cor.

Land, mountainous and rolling.

Soil, sandy loam, from 12 ins. to 24 ins. deep, 1st. rate
on mesa, balance sandstone ledges 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Under growth, sagebrush.

Mountainous land, densely timbered land or land covered
with dense undergrowth on 80.00chs.

September 6, 1911.

September 7: At 7h. 58m., p.m., l.m.t., I set off 37° 43' N. on
lat. arc, 6° 22' N. on decl. arc, and determine a meridian with
the solar at the cor. of secs. 31 and 32.

Thence I run

East resurveying on S. bdy. of sec. 32.

Gradual decent through scattering timber and dense under-
growth.

10.80 Leave scattering timber.

Difference between measurement of 40.00chs. by two sets of
chainmen is 4 lks.; position of middle point

By 1st. set 39.98chs.

By 2nd. set 40.02chs.; the mean of which is

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground
for re-established standard $\frac{1}{4}$ sec. cor., marked on brass
cap, $\frac{1}{4}$ S 32 on N. half; dig pits 18x18x12 ins., E. and W. of

Resurvey Seventh Standard Parallel South, Through Range 26 East.

CHAINS

post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

After diligent search no trace can be found of old standard $\frac{1}{4}$ sec. cor.

45.20 Enter heavy timber, bears N. and S. Leave dense undergrowth.

73.15 Top of sandstone ledges, 100 ft. high, bear NE. and SW.

Abrupt descent.

Difference between measurement of 80.00chs. by two sets of chainmen is 12 lks.; position of middle point

By 1st. set 79.94chs.

By 2nd. set 80.06chs.; the mean of which is

80.00 Set an iron post 3ft. long, 3ins. dia., 24ins in the ground for re-established standard cor. of secs. 32 and 33, marked on brass cap

T 35 S S32 in NW. and

R 26 E. S33 in NE. quadrant, from which

A pinyon 12 ins. dia., bears N. E. 45° , 11 lks. dist., marked T 35 S R 26 E S 33 BT.

A pinyon 7 ins. dia., bears N. W. 30° , 57 lks. dist., marked T 35 S R 26 E S 32 BT.

After diligent search no trace can be found of old standard sec. cor.

Land, rolling and mountainous.

Soil, sandy loam, from 12 ins. to 24 ins. deep, 1st. rate, on mesa, balance sandstone ledges 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, densely timbered land or land covered with dense undergrowth on 80.00chs.

At 11h. 58m., a.m., 1.m.t., I set off $6^{\circ} 18'$ N. on decl. arc and observe the sun on the meridian, the resulting lat. is $37^{\circ} 43'$ N.

East resurveying on S. bdy. sec. 33.

Abrupt descent over mountainous land, through heavy timber

Resurvey Seventh Standard Parallel South, Through Range 26 East.

CHAINS

- 19.50 Ravine, 200ft. deep, course S. in Oak Creek Canon.
Ascend.
- 34.50 Begin abrupt ascent over sandstone ledges.
Difference between measurement of 40.00chs. by two sets of chainmen is 8 lks.; position of middle point
By 1st set 39.96chs.
By 2nd set 40.04chs.; the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground for re-established standard $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 33^v on N. half, from which
A cedar 6 ins. dia., bears N. 80°00'E., 34 lks. dist., marked S C $\frac{1}{4}$ S 33^v. BT.
A cedar 6 ins. dia., bears N. 17°40'W., 198 lks. dist., marked S C $\frac{1}{4}$ S 33^v BT.
After diligent search no trace can be found of old standard $\frac{1}{4}$ sec. cor.
- 42.00 Top of ledges, 100 ft. high, bear N. and S.
Over level mesa.
- 63.50 Top of ledges, 100 ft. high, bears NE. and SW.
Abrupt descent.
- 69.80 Foot of ledges.
Gradual descent.
Difference between measurement of 80.00chs. by two sets of chainmen is 14 lks.; position of middle point
By 1st set 79.93chs.
By 2nd set 80.07chs.; the mean of which is
- 80.00 Set an iron post 3ft. long, 3ins. dia., 24ins. in the ground for re-established standard cor. of secs. 33 and 34, marked on brass cap,
T 35 S S 33^v in NW, and
R 26 E S 34^v in NE. quadrant, from which
A cedar 14 ins. dia., bears N. 77°00'E., 99 lks. dist., marked T 35 S R 26 E S 34^v BT.
A cedar 7 ins. dia., bears N. 63°05'W., 26 lks. dist., marked T 35 S R 26 E S 33^v BT.

Resurvey Seventh Standard Parallel South, Through Range 26 East.

CHAINS

After diligent search no trace can be found of old standard sec. cor.
 Land, mountainous.
 Soil, sandy loam and loose rock, 4th. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Mountainous land or densely timbered land on 80.00chs.
 September 7, 1911;

September 8: At 7h. 58m., a.m., l.m.t., I set off $37^{\circ}43'N$. on lat. arc, $5^{\circ}59'N$. on decl. arc, and determine a meridian with the solar at the cor. of secs. 33 and 34.

Thence I run

East resurveying on S. bdy. sec. 34.

Gradual descent along N. side of Monument Canon, through heavy timber.

Difference between measurement of 40.00chs. by two sets of chainmen is 6 lks.; position of middle point

By 1st. set 39.97chs.

By 2nd. set 40.03chs.; the mean of which is

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for re-established standard $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 34 on N. half, from which

A pinyon 13 ins. dia., bears $N.41^{\circ}20'E.$, 28 lks. dist., marked S C $\frac{1}{4}$ S 34 BT.

A cedar 5 ins. dia., bears $N.73^{\circ}40'W.$, 183 lks. dist., marked S C $\frac{1}{4}$ S 34 BT.

After diligent search no trace can be found of old standard $\frac{1}{4}$ sec. cor.

59.05 Ravine, 100ft. deep, drains SW., in Monument Canon.
 Ascend.

68.70 Top of spur, projects 2chs. N.
 Descend.

73.00 Leave timber, bears N. and S. Enter dense undergrowth.
 Difference between measurement of 80.00chs. by two sets of chainmen is 10lks.; position of middle point

CHAINS

By 1st. set, 79.95 chs.,

By 2nd. set, 80.05 chs., the mean of which is

80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established stan. cor. of secs. 34 and 35, marked on brass cap, T 35 S S 34 in NW., and R 26 E S 35 in NE. quadrant, dig pits, 24x18x12 ins., crosswise on each line, E. and W. 3 ft. and N. of post, 7 ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, N. of cor.

After diligent search no trace can be found of the old stan. sec. cor.

Soil, sandy loam mixed with loose rock, 3rd. and 4th. rate.

Subsoil, solid sandstone.

Timber, cedar and pinon.

Undergrowth, sage brush.

Mountainous land, heavily timbered land or land covered with dense undergrowth on 80.00 chs.

September 8: At this cor., I set off $5^{\circ}55'N$. on the decl. arc, and at 11h. 58m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}43'N$.

East, resurveying on S. by. of sec. 35.

Gradual descent through dense undergrowth.

1.80 Wash, 20ft. deep, 10ft. wide, drains NE.

15.00 Leave dense undergrowth. Enter heavy timber, bears N. and S. Difference between measurement of 15.70 chs. by two sets of chainmen is 2 lks.; position of middle point

By 1st. set. 15.69 chs.

By 2nd. set 15.71 chs.; the mean of which is

15.70 Intersect Utah-Colorado state line at $S.0^{\circ}09'E$, 45.00 chs. from the 48 M. cor., which is a pinon tree, marked and witnessed as described by the surveyor general.

Set an iron post 3ft. long, 3ins. dia., 24ins. in the ground for closing cor. of 7th. Stan. Par. South, marked on brass cap, C CC in E. half,

U in W. half and

Resurvey Seventh Standard Parallel South, Through Range 26 East.

T 35 S R 26 E S 35 in NW. quadrant; from which

A pinon 14 ins. dia., bears N. 47° 05' W., 25 lks. dist.

marked T 35 S R 26 E S 35 BT.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, clay.

Timber, cedar and pinon.

Undergrowth, sagebrush.

Heavily timbered land or land covered with dense undergrowth on 15.70chs.

September 8, 1911.

Chas. B. Andrews
U.S. Transitman.

For general description see subdivision of T. 35 S., R. 26 E.

FINAL OATH OF UNITED STATES SURVEYOR.

I, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for bearing date of the _____ day of _____, 191____, I have well, faithfully, and in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 19, 191____

The foregoing field notes of the ^{to} survey of the Seventh Standard Parallel South, through Range No. 26 East of the Salt Lake Base and Meridian, Utah,

executed by Eben R. Johnson my SA, _____, 191____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Charles Hill
U. S. Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____ has been correctly copied from the original notes on file in this office.

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BOOK A-394

FIELD NOTES

OF THE SURVEY OF THE

Subdivision of T. 35 S. R. 26 E.

Of the SALT LAKE BASE and Meridian,

the State of Utah.

EXECUTED BY

Melvin D. Heist and Eben B. Andrews.

Transitmen

in the capacity of U. S. Surveyors, under instructions dated May, 22, 1911,

issued by the United States Surveyor General to govern surveys included in

Group No. 12, which were approved by the Commissioner of the General Land

Office, June, 17, 1911, pursuant to authority contained in the Act of

Congress dated _____, 1911.

Survey commenced September, 7, 1911.

Survey completed September, 15, 1911.

BOOK A-394

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Survey commenced September 7, 1911, and executed with the instrument described in book "A" of this survey.

I begin at the re-established standard cor. of secs. 31 and 32, heretofore described, in approximate lat. $37^{\circ}43'N.$, long. $109^{\circ}08'20''W.$ on the 7th Standard Parallel South.

I examine the adjustments of the transit and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At 3h.58m., p.m., l.m.t., I set off $37^{\circ}43'N.$ on lat. arc, $6^{\circ}14'N.$ on decl. arc, and determine with the solar a meridian and mark the point thereof, on a stone firmly set in the ground 5chs. N. of the cor.

At 8h.29m. p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with instructions in the Manual and mark a point in the line thus determined on a peg driven in the ground 5chs. N. of the cor.

September 7, 1911.

September 8: At 7a.m., I lay off the azimuth of Polaris, $1^{\circ}29'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.3 ins. west of the mark determined by the solar.

At 7h.58m. a.m., l.m.t., I set off $37^{\circ}43'N.$ on the lat. arc, $5^{\circ}59'N.$ on the decl. arc, and mark the meridian thus determined, by a cross on the stone already set 5chs. N. of my station; this mark falls 0.2 ins. west of the meridian established by the Polaris observation.

The solar apparatus, by a.m. and p.m. observations, defines positions of the meridian, about $0'16''$ east and $0'11''$ west, respectively, of the meridian established by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

CHAINS

The magnetic bearing of the meridian at 8h.a.m., is N.15°35'W., the angle thus determined gives the mag. decl. 15°35'E.

From the re-established standard cor. of secs. 31 and 32, heretofore described,

I run

N.0°01'E., bet. secs.31 and 32.

Gradual ascent over rolling land, through scattering timber and dense undergrowth.

40.00 Set an iron post 3ft. long 1 in.dia., 26ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 31^v on W. half and S 32^v on E.half; from which

A cedar 9 ins.dia., bears N.47°55'E., 95 lks.dist., marked $\frac{1}{4}$ S 32 BT.

A cedar 7 ins.dia., bears S.65°25'W., 279 lks.dist., marked $\frac{1}{4}$ S 31 BT.

62.00 Ridge, bears NE. and SW.

Gradual descent.

78.20 Leave dense undergrowth, enter heavy timber. bears NE. and SW.

80.00 Set an iron post 3ft. long 2ins.dia., 24ins in the ground for cor.of secs.29-30-31 and 32, marked on brass cap

T 35 S S 30 in NW.

R 26 E S 29 in NE.

S 32 in SE., and

S 31 in SW. quadrant; from which

A pinyon 7ins. dia., bears N.6°45'E., 33 lks. dist., marked T 35 S R 26 E S 29 BT.

A pinyon 6ins. dia., bears S37°40'E., 7 lks. dist., marked T 35 S R26 E S 32 BT.

A pinyon 8ins. dia., bears S62°14'W., 156 lks. dist., marked T 35 S R26 E S 31 BT.

A pinyon. 6ins dia., bears N.50°13'W., 105 lks. dist., marked T 35 S R 26 E S 30 BT.

Land, rolling.

Soil, sandy loam, from 12 ins. to 24 ins. deep, 2nd. rate.

Subsoil, sandstone.

CHAINS

Timber, cedar and pinyon.
 Undergrowth, sagebrush.
 Densely timbered land or land covered with dense undergrowth on 80.00chs.
 At this cor. I set off $5^{\circ}55'N.$ on decl. arc, and at 11h. 58m. a.m., l.m.t., I observe the sun on the meridian, the resulting lat. is $37^{\circ}44'N.$

West on random line bet. secs. 30 and 31.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.02 Intersect W. bdy. of Tp. 7 lks. S. of re-established cor. of secs. 25-30-31 and 36, heretofore described

Thence I run

S. $89^{\circ}57'E.$, on true line between secs. 30 and 31.

Over level mesa, through heavy timber.

40.01 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 30 in N. half and S 31 in S. half; from which

A cedar 9 ins. dia., bears, N. $61^{\circ}16'W.$, 38 lks. dist., marked $\frac{1}{4}$ S 30 BT.

A pinyon 5 ins. dia., bears, S. $6^{\circ}40'E.$, 38 lks. dist., marked $\frac{1}{4}$ S 31 BT.

46.00 Top of sandstone ledges, 100ft. high, bear NE. and SW.

Abrupt descent.

53.70 Bottom of canon, 175ft. deep, drains SW., heads 20chs. NE.

Abrupt ascent over sandstone ledges.

64.16 Top of ledges, 100ft. high, bear NE. and SW.

Gradual ascent over mesa.

80.02 The cor. secs. 29-30-31 and 32.

Land, mountainous and rolling.

Soil, sandy loam, from 12 ins to 24 ins. deep on mesa, 1st. rate, balance sandstone ledges, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Dense timber on 80.02chs.

September 8, 1911.

CHAINS

September 9: At 7h.58m.a.m.,l.m.t.,I set off $37^{\circ}4'N.$ on lat. arc, $5^{\circ}37'N.$ on decl. arc, and determine a meridian with the solar at the cor. of secs.29-30-31 and 32. Thence I run

N. $0^{\circ}01'E.$ bet. secs. 29 and 30.

Gradual descent through heavy timber.

17.50 Ravine, 50ft. deep, 100ft. wide, drains SW.

Ascend over rolling land.

40.00 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ Sec. cor., marked on brass cap, $\frac{1}{4}$ S $30'$ in W. half and S 29 in E. half; from which

A cedar 9ins. dia., bears, N. $51^{\circ}38'E.$, 22 lks. dist., marked $\frac{1}{4}$ S 29 BT.

A cedar 14ins. dia., bears, N. $63^{\circ}00'W.$, 21 lks. dist., marked $\frac{1}{4}$ S 30 BT.

65.92 Leave heavy timber, bears, NE. and SW., enter scattering timber and dense undergrowth.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins in the ground for cor. of secs. 19-20-29 and 30, marked on brass cap

T 35 S S 19 in NW.

R 26 E. S 20 in NE.

S 29 in SE. and

S 30 in SW. quadrant; from which

A cedar 6ins dia., bears, N. $14^{\circ}20'E.$, 114 lks. dist., marked T 35 S R 26 E S 20 BT.

A cedar 5ins. dia., bears, S. $86^{\circ}30'E.$, 88 lks. dist., marked T 35 S R 26 E S 29 BT.

A pinyon 8ins. dia., bears, S. $39^{\circ}02'W.$, 17 lks. dist., marked T 35 S R 26 E S 30 BT.

A pinyon 7ins. dia., bears, N. $71^{\circ}22'W.$, 183 lks. dist., marked T 35 S R 26 E S 19 BT.

Land, rolling.

Soil, sandy loam and loose rock on first 32.00chs. 3d. rate, balance, sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

CHAINS

Undergrowth, sagebrush.
 100.00 Densely timbered land or land covered with dense undergrowth on 80.00chs.
 At this cor. I set off $5^{\circ}33'N.$ on decl. arc, and at 11h⁵⁸m., a.m., l.m.t., I observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N.$

N. $89^{\circ}57'W$ on random line bet. secs. 19 and 30.

- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.00 Intersect W. bdy. of Tp. 5 lks. N. of re-established cor. of secs. 19-24-25 and 30, heretofore described.
 Thence I run
 S. $89^{\circ}59'E.$, on true line bet. secs. 19 and 30.
 Ascend through heavy timber.
- 26.05 Ridge, bears NE. and SW.
 Descend.
- 40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ Sec. cor., marked on brass cap, $\frac{1}{4}$ S 19 in north half and S 30 in S. half; from which
 A pinyon 8 ins. dia., bears N. $28^{\circ}39'W.$, 30 lks. dist., marked $\frac{1}{4}$ S 19 BT.
 A pinyon 12 ins. dia., bears South, 43 lks. dist., marked $\frac{1}{4}$ S 30 BT.
- 45.20 Leave heavy timber, bears NW. and SE., enter scattering timber and dense undergrowth.
- 58.75 Ravine, 50ft deep, 100ft. wide, drains S.
 Ascend.
- 80.00 The cor. secs. 19-20-29 and 30.
 Land, mountainous and rolling.
 Soil, sandy loam and loose rock, 2nd. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush.
 Mountainous land, densely timbered land or land covered with dense undergrowth on 80.00chs.

September 9, 1911.

CHAINS

- September 11: At 7h.57m., a.m., l.m.t., I set off $37^{\circ}45'N.$ on lat. arc., $4^{\circ}52'N.$, on decl. arc, and determine a meridian with the solar at the cor. of secs. 19-20-29 and 30.
- Thence, I run $N.0^{\circ}01'E.$ bet, secs. 19 and 20.
- Rolling ascent through scattering timber and dense undergrowth.
- 15.65 Leave scattering timber.
- 39.08 Enter heavy timber, bears NE. and SW.; leave undergrowth.
- 40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S $19'$ in W. half and S $20'$ in E. half; from which
- A pinyon 7 ins. dia., bears N. $37^{\circ}15'E.$, 70 lks. dist., marked $\frac{1}{4}$ S $20'$ BT.
- A cedar 6 ins. dia., bears S. $87^{\circ}16'W.$, 127 lks dist., marked $\frac{1}{4}$ S $19'$ BT.
- 61.22 Ridge, bears, NE. and SW.
- Descend.
- 76.55 Leave heavy timber, bears NE. and SW., enter dense undergrowth.
- 80.00 Set an iron post 3ft. long, 2 ins. dia., 24 ins in the ground for cor. secs. 17-18-19 and 20, marked on brass cap
- T 35 S S $18'$ in NW.
- R 26 E S $17'$ in NE.
- S $20'$ in SE. and
- S $19'$ in SW. quadrant; and raise a mound of stone, 2ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- At this cor. I set off $4^{\circ}47'N.$ on decl. arc, and at 11h 57m, a.m., l.m.t., I observe the sun on the meridian, the resulting lat. is $37^{\circ}46'N.$
- Land, rolling.
- Soil, sandy loam and loose rock, 2nd. rate.
- Subsoil, sandstone.
- Timber, cedar and pinyon.

CHAINS

Undergrowth, sagebrush.
 Densely timbered land or land covered with dense undergrowth on 80.00chs.

40.00 N. 89°59' W. on random line bet. secs. 18 and 19.
 Set temp. $\frac{1}{4}$ sec. cor.
 80.02 Intersect W. bdy. of Tp. 2 lks. S. of re-established cor. of secs. 13-18-19 and 24, heretofore described:

Thence I run
 S. 89°58' E., on true line bet. secs. 18 and 19.
 Ascend over mountainous land, through heavy timber.

40.01 Set an iron post 3ft. long; 3ins. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 18 in N. half and S 19 in S. half; from which

A cedar 14ins. dia., bears N. 14°30' E., 43 lks. dist., marked $\frac{1}{4}$ S 18 BT.

A pinyon 8ins. dia., bears S. 76°20' E., 7 lks. dist., marked $\frac{1}{4}$ S 19 BT.

56.85 Begin abrupt ascent over sandstone ledges.
 58.75 Top of ledges, 100ft. high, bear NE. and SW. Leave heavy timber, bears NE. and SW. Gradual ascent over mesa.

80.02 The cor. secs. 17-18-19 and 20.
 Land, mountainous.
 Soil, sandy loam and loose rock on mesa, 3d. rate, balance sandstone ledges and loose rock, 4th. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Mountainous land or land covered with dense timber on 80.02chs.

September 11, 1911.

September 12: At 7h 57m., a.m., l.m.t., I set off 37°46' N. on lat. arc; 4°29' N. on decl. arc, and at the cor of secs. 17-18-19 and 20, determine a meridian with the solar.
 Thence I run

CHAINS

N.0°01'E. bet. secs. 17 and 18.

Gradual descent, through dense undergrowth.

9.73 Top of sandstone ledges, 100ft. high, bear NE. and SW.
Leave dense undergrowth. Abrupt descent.

11.45 Foot of ledges.

Gradual descent, through dense timber.

40.00 Set an iron post 3ft. long, 1 in. dia., 26ins. in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 18 in W. half
and S 17 in E. half; from which

A cedar 7ins. dia., bears, S. 22°54'E., 35 lks. dist.,
marked $\frac{1}{4}$ S 17 BT.

A pinyon 8ins. dia., bears, N. 64°18'W., 24 lks. dist.,
marked $\frac{1}{4}$ S 18 BT.

65.20 Top of broken ledges, 100ft. high, bear, NE. and SW.
Abrupt descent.

71.09 Ravine, 50ft. deep, 300ft. wide, in bottom of Coal Bed Canon
drains, SW.

Abrupt ascent over broken ledges.

76.00 Top of ledges, 100ft. high, bear, NE. and SW.
Gradual ascent.

80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground
for cor. secs. 7-8-17 and 18, marked on brass cap

T 35 S S' 7 in NW.

R 26 E S' 8 in NE.

S 17 in SE. and

S 18 in SW. quadrant; from which

A pinyon 11ins. dia., bears, N. 82°29'E., 87 lks. dist.,
marked T 35 S R 26 E S' 8 BT.

A pinyon 8ins. dia., bears S. 59°30'E., 54 lks. dist.,
marked T 35 S R 26 E S 17 BT.

A cedar 6ins. dia., bears, S. 50°17'W., 71 lks. dist.,
marked T 35 S R 26 E S 18 BT.

A pinyon 9ins. dia., bears, N. 70°14'W., 25 lks. dist.,
marked T 35 S R 26 E S 7 BT.

CHAINS

Land, mountainous.
 Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Mountainous land covered with dense timber on 80.00chs.
 At 11h. 57m, a.m., l.m.t., I set off $4^{\circ}24'N$. on decl. arc,
 and at this cor. observe the sun on the meridian, the
 resulting lat. is $37^{\circ}47'N$.

N. $89^{\circ}58'W$. on random line bst. secs. 7 and 18.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.04 Intersect W. bdy. of Tp. 2 lks. S. of re-established cor.
 of secs. 7-12-13 and 18, heretofore described.
 Thence I run
 S. $89^{\circ}57'E$., on true line bet. secs. 7 and 18.
 Gradual ascent over mountainous land, through dense
 timber.
 29.85 Ridge, bears N. and S.
 Descend.
 37.75 Ravine, 50ft. deep, 75ft. wide, drains S.
 Ascend.
 40.02 Set an iron post 3ft. long, 1 in. dia., 26ins. in the
 ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 7 in N.
 half and S 18 in S. half; from which
 A cedar 10ins. dia., bears, N. $48^{\circ}22'E$., 5 lks. dist.,
 marked $\frac{1}{4}$ S 7 BT.
 A cedar 6ins. dia., bears, S. $37^{\circ}40'W$., 14 lks. dist.,
 marked $\frac{1}{4}$ S 18 BT.
 68.85 Ridge, bears, N. and S.
 Descend.
 80.04 The cor. secs. 7-8-17 and 18.
 Land, mountainous.
 Soil, sandy loam and loose rock, 4th. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.

CHAINS

Mountainous land covered with dense timber on 80.00chs.

September 12, 1911.

September 14: At 7h¹/₅₆m, a.m., l.m.t., I set off 37° 47' N. on lat. arc, 3° 43' N. on decl. arc, and determine a meridian at the cor. of secs. 7-8-17 and 18.

Thence I run

N. 0° 01' E. bet. secs. 7 and 8.

Gradual ascent over mountainous land, through heavy timber.

40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 7' in W. half and S 8' in E. half; from which

A pinyon 8 ins. dia., bears, N. 75° 20' E., 36 lks. dist., marked $\frac{1}{4}$ S 8' BT.

A cedar 9 ins. dia., bears, N. 60° 45' W., 37 lks. dist., marked $\frac{1}{4}$ S 7' BT.

Begin abrupt ascent over sandstone ledges.

46.70 Top of ledges, 150ft. high, bear NE. and SW. Over rolling mesa.

70.80 Leave heavy timber, bears E. and W., enter scattering timber and dense undergrowth.

80.00 Set an iron post 3ft. long 2 ins. dia., 24 ins. in the ground for cor. of secs. 5-6-7 and 8, marked on brass cap

T 35 S S 6' in NW.

R 26 E S 5' in NE.

S 8' in SE. and

S 7' in SW. quadrant; from which

A cedar 8 ins. dia., bears, S. 55° 00' E., 183 lks. dist., marked T 35 S R 26 E S 8' BT.

A cedar 7 ins. dia., bears, S. 30° 45' W., 181 lks. dist., marked T 35 S R 26 E S 7' BT.

No other bearing trees within limits; dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist.; and raise mound of earth, 4ft. base, 2ft. high, W. of cor.

-51-
Subdivision of T. 35 S. R. 26 E.

CHAINS

Land, mountainous and rolling.
Soil, sandy loam from 12ins. to 24ins. deep on mesa, 1st. rate, balance sandstone ledges and loose rock, 4th. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Undergrowth, sagebrush.

Mountainous land, densely timbered land, or land covered with dense undergrowth on 80.00chs,

At 11h^{56m}, a.m., l.m.t., I set off $3^{\circ}38'N.$ on decl. arc, and at this cor., observe the sun on the meridian, the resulting lat. is $37^{\circ}48'N.$

$N. 89^{\circ}57'W.$ on random line bet. secs. 6 and 7.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.02 Intersect W. bdy. of Tp. 2 lks. N. of re-established cor. of secs. 1-6-7 and 12, heretofore described.

Thence I run $S. 89^{\circ}58'E.$, on true line bet. secs. 6 and 7.

Over rolling mesa, through scattering timber, and dense undergrowth.

25.80 Draw, 20ft. deep, 100ft. wide, drains SE.

31.30 Leave dense undergrowth, enter heavy timber, bears NW. and SE.

40.01 Set an iron post 3ft, long 1 1/2 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 6 in N. half and S 7 in S. half; from which

A cedar 1 1/2 ins dia., bears, $N. 63^{\circ}41'W.$, 13 lks. dist., marked $\frac{1}{4}$ S 6 BT.

A cedar 1 1/2 ins. dia., bears, $S. 54^{\circ}50'W.$, 39 lks. dist., marked $\frac{1}{4}$ S 7 BT.

44.10 Leave heavy timber, bears NW. and SE., enter scattering timber and dense undergrowth.

80.02 The cor. of secs. 5-6-7 and 8.

Land, rolling.

Soil, sandy loam, 2nd. rate.

CHAINS

Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush.
 Land covered with dense timber or dense undergrowth on 80.02chs.

N.0°01'E., on random line bet. secs. 5 and 6.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.88 Intersect N. bdy. of Tp. 7lks. W. of re-established cor. of secs. 5-6-31 and 32, heretofore described.

Thence I run

S.0°04'W., on true line bet. secs. 5 and 6.

Over rolling mesa, through heavy timber.

6.18 Leave heavy timber, bears NE. and SW., enter scattering timber and dense undergrowth.

39.88 Set an iron post 3ft. long, 3ins. dia., 26ins in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S. 6' in W. half and S 5' in E. half; dig pits 18x18x12 ins. N. and S. of post, 3ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

79.88 The cor. of secs. 5-6-7 and 8.

Land, rolling.

Soil, sandy loam, 1st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with timber or dense undergrowth on 80.00chs.

September 14, 1911.

September 9: At 3h 58m, p.m., 1.m.t. I set off $37^{\circ}43'$ N.; on the lat. arc, $5^{\circ}29'$ N. on the decl. arc, and determine a meridian with the solar at the re-established standard cor. of secs. 32 and 33, on S. Bdy. of Tp., heretofore described. Thence I run

N.0°01'E. bet. secs. 32 and 33.

CHAINS

Over mountainous land, through heavy timber.

17.25 Abrupt ascent over ledges.

17.25 Top of sandstone ledges 100ft. high, bears NE. and SW.

Over rolling mesa.

35.15 Leave heavy timber, bears NE. and SW., enter scattering timber and dense undergrowth.

40.00 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 32 in W. half and S 33 in E. half; from which

A pinyon 5ins. dia., bears N. 58° 33' E., 13 lks. dist., marked $\frac{1}{4}$ S 33 BT.

A pinyon 6ins. dia., bears S. 38° 30' W., 68 lks. dist., marked $\frac{1}{4}$ S 32 BT.

80.00 Set an iron post 3ft. long 2ins. dia., 24ins. in the ground for cor. of secs. 28-29-32 and 33, marked on brass cap

T 35 S S 29 in NW.

R 26 E S 28 in NE.

S 33 in SE. and

S 32 in SW. quadrant; from which

A pinyon 10ins. dia., bears S. 29° 50' W., 54 lks. dist., marked T 35 S R 26 E S 32 BT.

A pinyon 8ins. dia., bears N. 22° 12' W., 30 lks. dist., marked T 35 S R 26 E S 29 BT.

No other bearing trees within limits; dig pits 18x18x12 ins in each sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth 4 ft. base 2 ft. high W. of cor.

Land, mountainous and rolling.

Soil, sandy loam 12 ins. to 24 ins. deep on mesa, 1 st. rate, balance sandstone ledges, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, densely timbered land or land covered with dense undergrowth on 80.00chs.

CHAINS

West on random line bet. secs. 29 and 32.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.02 Intersect N. and S. line at cor of secs. 29-30-31 and 32.
Thence I run
East on true line bet. secs. 29 and 32.
Over rolling land, through scattering timber and dense undergrowth.

30.10 Ridge, bears NE. and SW.

40.01 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 29 in N. half and S 32 in S. half; from which
A cedar 8 ins. dia., bears, N. $83^{\circ}48'$ E., 78 lks. dist., marked $\frac{1}{4}$ S 29 BT.
A cedar 11 ins. dia., bears, S. $16^{\circ}03'$ W., 153 lks. dist., marked $\frac{1}{4}$ S 32 BT.

80.02 The cor. of secs. 28-29-32 and 33.
Land, rolling.
Soil, sandy loam, 1st. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Undergrowth, sagebrush.
Land covered with scattering timber and dense undergrowth on 80.02chs.

September 9, 1911.

September 11: Thence I run
N $00^{\circ}01'$ E. bet. secs. 28 and 29.
Over rolling land; through scattering timber and dense undergrowth.

3.22 Leave scattering timber.

40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 29 in W. half and S 28 in E. half; dig pits 18x18x12 ins. N. and S. of post, 3ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft. base,

CHAINS	
80.00	<p>1½ ft. high W. of cor.</p> <p>Set an iron post 3ft. long 2ins. dia., 24ins. in the ground for cor. of secs. 20-21-28 and 29, marked on brass cap T 35 S S 20 in NW. R 26 E S 21 in NE. S 28 in SE. and S 29 in SW. quadrant; dig pits 18x18x12 ins. in each</p>
	<p>sec. 5½ ft. dist.; and raise mound of earth, 4ft. base, 2ft. high, W. of cor.</p> <p>Land, rolling.</p> <p>Soil, sandy loam.</p> <p>Subsoil, sandstone.</p> <p>Timber, cedar and pinyon.</p> <p>Undergrowth, sagebrush.</p> <p>Land covered with scattering timber or land covered with dense undergrowth on 80.00chs.</p>
	<p>West on random line bet. secs. 20 and 29.</p>
40.00	<p>Set temp. ¼ sec. cor.</p>
80.06	<p>Intersect N. and S. line 9 lks. S. of cor. of secs. 19-20-29 and 30.</p>
	<p>Thence I run S. 89°56'E., on true line bet. secs. 20 and 29. Over rolling land, through scattering timber and dense undergrowth.</p>
5.70	<p>Ridge, bears, NE. and SW.</p>
9.86	<p>Leave scattering timber.</p>
21.30	<p>Draw, 20ft. deep, 100ft. wide, drains S.</p>
40.03	<p>Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap, ¼ S 20 in N. half, and S 29 in S. half; dig pits 18x18x12 ins. E. and W. of post; 3ft. dist.; and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.</p>
52.40	<p>Ridge, bears, NE. and SW.</p>
80.06	<p>The cor. of secs. 20-21-28 and 29.</p> <p>Land, rolling.</p>

Subdivision of T. 35 S. R. 26 E.

CHAINS

Soil, sandy loam.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush.
 Land covered with scattering timber, or land covered with
 dense undergrowth on 80.06chs.

N. 0° 01' E., bet. secs. 20 and 21.

Over rolling land, through dense undergrowth.

40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 20 in W. half,
 and S 21 in E. half; dig pits 18x18x12 ins. N. and S. of
 post 3ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base,
 $1\frac{1}{2}$ ft. high W. of cor.

41.68 Ridge, bears NE. and SW.

74.05 Wire fence, bears, NW. and SE.

80.00 Set an iron post 3ft. long, 2 ins. dia., 24 ins. in the ground
 for cor. of secs. 16-17-20 and 21, marked on brass cap
 T 35 S S 17 in NW.
 R 26 E S 16 in NE.
 S 21 in SE. and
 S 20 in SW. quadrant; dig pits 18x18x12 ins. in each sec.
 $5\frac{1}{2}$ ft. dist.; and raise a mound of earth 4 ft. base, 2 ft.
 high W. of cor.

Land, rolling.

Soil, sandy loam.

Subsoil, sandstone.

No timber.

Undergrowth, sagebrush.

Dense undergrowth on 80.00chs.

N. 89° 56' W. on random line bet. secs. 17 and 20.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.96 Intersect N. and S. line 2 lks. S. of cor. of secs. 17-
18-19 and 20.

Subdivision of T. 35 S. R. 26 E.

CHAINS

Thence I run
 $S. 89^{\circ}55' E.$ on true line bet. secs. 17 and 20.
 Over rolling land, through dense undergrowth.

5.50 Enter scattering timber.
 39.98 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4} S 17^{\circ}$ in N. half, and $S 20^{\circ}$ in S. half; from which
 A pinyon 6 ins. dia., bears, $N. 11^{\circ}39' E.$, 59 lks. dist., marked $\frac{1}{4} S 17^{\circ}$ BT.
 A pinyon 6 ins. dia., bears, $S. 58^{\circ}54' E.$, 28 lks. dist., marked $\frac{1}{4} S 20^{\circ}$ BT.

52.30 Ridge, bears, NE. and SW. Leave scattering timber.
 78.09 Wire fence, bears, NW. and SE.
 79.96 The cor. of secs. 16-17-20 and 21.
 Land, rolling.
 Soil, sandy loam.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush.
 Land covered with scattering timber or dense undergrowth on 79.96chs.

September 11, 1911.

September 13: At 7h 56m, a.m., l.m.t., I set off $37^{\circ}46' N.$ on lat. arc, $4^{\circ}06' N.$ on decl. arc, and determine a meridian with the solar; at the cor. of secs. 16-17-20 and 21.
 Thence I run

$N. 0^{\circ}01' E.$, bet. secs. 16 and 17.
 Over rolling land, through dense undergrowth.

19.38 Ridge, bears, NE. and SW. Enter scattering timber.
 23.32 Enter heavy timber, bears, E. and W.; scattering undergrowth.
 40:00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ Sec. cor., marked on brass cap, $\frac{1}{4} S 17^{\circ}$ in W. half, and $S 16^{\circ}$ in E. half; from which
 A pinyon, 9 ins. dia., bears, $N. 75^{\circ}02' E.$, 40 lks. dist.,

Subdivision of T. 35 S. R. 26 E.

CHAINS

marked $\frac{1}{4}$ S 16 BT.

A pinyon 12ins. dia., bears, S. $71^{\circ}08'W.$, 47 lks. dist.,

marked $\frac{1}{4}$ S 17 BT.

71.28 Leave timber, bears, NE. and SW. Enter dense undergrowth.

75.01 Top of sandstone ledges, 100ft. high, bears NE. and SW.

Abrupt descent.

78.60 Foot of ledges.

Gradual descent over slope of Coalbed Canon.

80.00 Set an iron post 3ft. long 2ins. dia., 24ins. in the ground for cor. of secs. 8-9-16 and 17, marked on brass cap

T 35 S S 8° in NW.

R 26 E S 9° in NE.

S 16° in SE. and

S 17° in SW. quadrant; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

Land, mountainous and rolling.

Soil, sandy loam on first 72.00chs.; 1st. rate; balance

sandstone ledges, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, densely timbered land or land covered with dense undergrowth on 80.00chs.

Sept. 13: At 11h 56m, a.m., l.m.t., I set off $4^{\circ}01'N.$ on the decl. arc and at the cor. of secs. 8-9-16 and 17, observe the sun on the meridian, the resulting lat. is $37^{\circ}47'N.$

N. $89^{\circ}55'W.$, on random line bet. secs. 8 and 17.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.10 Intersect N. and S. line 5 lks. N. of the cor. of secs. 7-8-17 and 18.

Thence I run

S. $89^{\circ}57'E.$ on true line bet. secs. 8 and 17.

Descend over mountainous land, through heavy timber.

28.38 Top of sandstone ledges, 100ft. high, bear NE. and SW.

Subdivision of T. 35 S. R. 26 E.

CHAINS

- 36.45 Abrupt descent.
 Ravine, 50ft, deep, 200ft. wide, in bottom of Coalbed Canon,
 drains, SW.
- 40.05 Abrupt ascent over sandstone ledges.
 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 8 $\sqrt{}$ in N. half
 and S 17 $\sqrt{}$ in S. half; from which
 A pinyon 8ins. dia., bears, N. 32°02' W., 53 lks. dist.,
 marked $\frac{1}{4}$ S 8 $\sqrt{}$ BT.
 A pinyon 9ins. dia., bears, S. 30°30' E., 15 lks. dist.,
 marked $\frac{1}{4}$ S 17 $\sqrt{}$ BT.
- 45.30 Top of ledges, 100ft. high; bear NE. and SW.
 Gradual ascent.
- 48.14 Spur, projects N. 5chs.
 Descend.
- 65.65 Ravine, 50ft, deep, 200ft. wide, drains N. Leave timber,
 bears; NE. and SW.
 Ascend.
- 80.10 The cor. of secs. 8-9-16 and 17.
 Land, mountainous.
 Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.
 Subscil, sandstone.
 Timber, cedar and pinyon.
 Mountainous land or densely timbered land on 80.00chs.
 September 13, 1911.
-
- September 15: At 7h $\frac{1}{2}$ 56m, a.m., l.m.t., I set off 37°47' N. on
 the lat. arc, 3°20' N. on the decl. arc, and determine a
 meridian with the solar at the cor. of secs. 8-9-16 and
 17.
 Thence I run
 N. 0°01' E. bet. secs. 8 and 9.
 Descend over mountainous land, through scattering timber.
- 32.00 Top of sandstone ledges, 50ft. high, bear NE. and SW.
 Abrupt descent.

Subdivision of T. 35 S. R. 26 E.

CHAINS

- 39.10 Ravine, 40ft. deep, 200ft. wide, in bottom of Coalbed Canon,
drains SW.
Ascend.
- 40.00 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 8 in NW. half
and S 9 in E. half; from which
A cedar 15ins. dia., bears, S. 28° 57' E., 94 lks. dist.,
marked $\frac{1}{4}$ S 9 BT.
A cedar 9ins. dia., bears, S. 84° 22' W., 19 lks. dist.,
marked $\frac{1}{4}$ S 8 BT.
- 41.50 Begin abrupt ascent over sandstone ledges.
- 45.60 Top of ledges, 50ft. high, bear, NE. and SW.
Gradual ascent.
- 80.00 Set an iron post 3ft. long 2ins. dia., 24ins. in the ground
for cor. of secs. 4-5-8 and 9, marked on brass cap
T 35 S S 5 in NW.
R 26 E S 4 in NE.
S 9 in SE. and
S 8 in SW. quadrant; from which
A cedar 20ins. dia., bears, N. 27° 30' E., 48 lks. dist.,
marked T 35 S R 26 E S 4 BT.
A cedar 14ins. dia., bears, S. 65° 44' E., 40 lks. dist.,
marked T 35 S R 26 E S 9 BT.
A cedar 7ins. dia., bears, S. 19° 43' W., 80 lks. dist.,
marked T 35 S R 26 E S 8 BT.
A pinyon 8ins. dia., bears, N. 24° 20' W., 35 lks. dist.,
marked T 35 S R 26 E S 5 BT.
- Land, mountainous.
Soil, sandstone ledges and loose rock, 4th. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Mountainous land covered with timber on 80.00chs.

Sept. 15: At 11h 56m, a.m., l.m.t., I set off 3215' N. on the decl. arc
and at the cor. of secs. 4-5-8 and 9, observe the sun on
the meridian, the resulting lat. is 37° 48' N.

CHAINS	Thence I run
	N. 89°57' W., on random line bet. secs. 5 and 8.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.10	Intersect N. and S. line 6 lks. W. of the cor. of secs.
	5-6-7 and 8.
	Thence I run
	East on true line bet. secs. 5 and 8.
	Over rolling mesa, through scattering timber and dense undergrowth.
40.05	Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground
	for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 5 in N. half and S 8 in S. half; from which
	A cedar 7 ins. dia., bears, N. 33°19' E., 52 lks. dist., marked $\frac{1}{4}$ S 5 BT.
	A cedar 7 ins. dia., bears, S. 22°22' E., 26 lks. dist., marked $\frac{1}{4}$ S 8 BT.
71.40	Top of sandstone ledges, 100ft. high, bear N. and S.
	Abrupt descent.
80.10	The cor. of secs. 4-5-8 and 9.
	Land, mountainous and rolling.
	Soil; sandy loam on mesa, 2nd. rate, balance sandstone ledges 4th. rate.
	Subsoil, sandstone.
	Timber, cedar and pinyon.
	Undergrowth, sagebrush.
	Mountainous land or land covered with scattering timber and dense undergrowth on 80.10chs.
	Thence I run
	N. 0°01' E., on random line bet. secs. 4 and 5.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.93	Intersect N. bdy. of Tp. 4 lks. W. of re-established cor.
	of secs. 4-5-32 and 33, heretofore described.
	Thence I run
	S. 0°03' W., on true line bet. secs. 4 and 5.

CHAINS

- Over rolling mesa, through scattering timber and dense undergrowth.
- 25.00 Leave dense undergrowth, enter heavy timber, bears, E. and W.
- 39.93 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 5 in W. half and S 4 in E. half; from which
- A pinyon 8 ins. dia., bears, S. 66° 39' E., 20 lks. dist., marked $\frac{1}{4}$ S 4 BT.
- A pinyon 5 ins. dia., bears, S. 42° 40' W., 22 lks. dist., marked $\frac{1}{4}$ S 5 BT.
- 74.43 Top of sandstone ledges, 100 ft. high, bear, E. and W. Abrupt descent.
- 79.93 The cor. of secs. 4-5-8 and 9. Land, rolling and mountainous. Soil, sandy loam on mesa, 1st. rate, balance sandstone ledges 4th. rate. Subsoil, sandstone. Undergrowth, sagebrush. Mountainous land, densely timbered land or land covered with dense undergrowth on 79.93chs.

September 15, 1911.

Melvin J. Heist
U.S. Transitman.
-G.L.O.-

Survey commenced September 10, 1911, and executed with the instrument described in book "D" of this survey. I begin at the re-established standard cor. of secs. 33 and 34, heretofore described, in approximate lat. 37° 43' N., long. 109° 07' 13" W., (on S. bdy. of Tp.). I examine the adjustments of the transit and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At 3h⁵⁷m, p.m., l.m.t., I set off 37°43' N. on the lat. arc, 5°07' N. on the decl. arc, and determine with the solar a meridian and mark the point thereof, on a stone firmly set in the ground 5chs. N. of the cor.

At 8h¹⁷m, p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with instructions in the Manual and mark a point in the line thus determined on a peg driven in the ground 5chs. N. of the cor.

September 10, 1911.

September 11: At 7a.m., I lay off the azimuth of Polaris, 1°29' to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.2 ins. west of the mark determined with the solar.

At 7h⁵⁷m, a.m., l.m.t., I set off 37°43' N. on the lat. arc, 4°52' N. on the decl. arc, and mark the meridian thus determined, by a cross on the stone already set 5chs. N. of my station; this mark falls 0.2 ins. west of the meridian established by the Polaris observations.

The solar apparatus, by a.m. and p.m. observations, defines positions of the meridian, about 0'11" east and 0'11" west, respectively, of the meridian established by Polaris observations; therefor I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the meridian at 8h, a.m., is N. 15°35' W., the angle thus determined gives the mag. decl. 15°35' E.

From the re-established standard cor. of secs. 33 and 34, heretofore described,

I run over rolling ground,

N. 0°02' E., bet. secs. 33 and 34.

13.20 Abrupt ascent over sandstone ledges, through heavy timber

18.30 Top of ledges, 100ft. high, bear, NE. and SW.

Over rolling mesa.

Subdivision of T. 35 S. R. 26 E.

CHAINS
40.00

Set an iron post 3ft, long 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 33 in W. half and S 34 in E. half; from which

A pinyon 6ins. dia., bears, S. 14°45' E., 57 lks. dist., marked $\frac{1}{4}$ S 34 BT.

A pinyon 7ins. dia., bears, S. 33°40' W., 203 lks. dist., marked $\frac{1}{4}$ S 33 BT.

43.00 Leave timber, bears, E. and W. Enter dense undergrowth.

80.00 Set an iron post 3ft. long 2ins. dia., 24ins. in the ground for cor. of secs. 27-28-33 and 34, marked on brass cap

T 35 S S 28 in NW.

R 26 E S 27 in NE.

S 34 in SE. and

S 33 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft, dist.; and raise a mound of earth 4 ft, base, 2 ft. high W. of cor.:

Land, mountainous and rolling.

Soil, sandy loam on mesa, 2nd. rate, balance sandstone ledges, 4th. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Mountainous land, densely timbered land or land covered with dense undergrowth on 80.00chs.

West on random line bet. secs. 28 and 33.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.00 Intersect N. and S. line 2 lks. S. of cor. of secs. 28-29-32 and 33.

Thence I run

S. 89°59' E., on true line bet. secs. 28 and 33.

Descend, through scattering timber.

24.80 Top of ledges, 30ft. high, bear, N. and S.

Abrupt descent.

31.30 Ravine, 25ft. deep, 100 ft. wide, in bottom of Oak Creek

Subdivision of T. 35 S. R. 26 E.

CHAINS

Canon, drains S.
 Abrupt ascent over sandstone ledges.
 36.55 Top of ledges, 30ft. high, bear N. and S.
 Ascend.
 40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 28 in N. half
 and S 33 in S. half; from which
 A pinyon 15 ins. dia., bears, N. 19° 35' W., 53 lks. dist.,
 marked $\frac{1}{4}$ S 28 BT.
 A pinyon 14 ins. dia., bears, S. 63° 10' E., 35 lks. dist.,
 marked $\frac{1}{4}$ S 33 BT.
 47.00 Spur, projects S.
 Descend.
 53.90 Top of sandstone ledges, 30ft. high, bear NE. and SW.
 Abrupt descent.
 56.70 Ravine, 25ft. deep, 150ft. wide, drains SW.
 Abrupt ascent over sandstone ledges.
 63.60 Top of ledges, 30ft. high, bears NE. and SW.
 Gradual ascent.
 76.00 Leave timber, enter dense undergrowth.
 80.00 The cor. of secs. 27-28-33 and 34.
 Land, mountainous.
 Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush.
 Mountainous land, timbered land or land covered with dense
 undergrowth on 80.00chs.
 At 11h 57m. a.m., l.m.t., I set off $4^{\circ}47'$ N. on the decl. arc,
 and at the cor. of secs. 27-28-33 and 34, observe the sun
 on the meridian, the resulting lat. is $37^{\circ}44'$ N.
 September 11, 1911.

September 12: At 7h 57m, a.m., l.m.t., I set off $37^{\circ}44'$ N. on
 the lat. arc, $4^{\circ}29'$ N. on the decl. arc, and at the cor. of

CHAINS

secs. 27-28-33 and 34, determine a meridian with the solar.
Thence I run

N.0°02'E. bet. secs. 27 and 28.

Over rolling mesa, through dense undergrowth.

37.92 Wagon road, bears NE. and SW.

38.96 Pole and wire fence, bears, S.30°00'W.

39.00 Enter scattering timber.

40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground
for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 28^v in W. half
and S 27^v in E. half; from which

A pinyon 7 ins. dia., bears, N.55°30'E., 156 lks. dist.,
marked $\frac{1}{4}$ S 27^v BT.

No other bearing trees within limits; dig pits 18x18x12 ins.
N. and S. of post, 3ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft.
base, $1\frac{1}{2}$ ft. high W. of cor.

42.15 Pole and wire fence, bears, N.16°00'W.

80.00 Set an iron post 3ft. long 2 ins. dia., 24 ins. in the ground
for cor. of secs. 21-22-27^v and 28, marked on brass cap
T 35 S S 21^v in NW.
R 26 E S 22^v in NE.
S 27^v in SE. and
S 28^v in SW. quadrant; from which

A cedar 15 ins. dia., bears, S.37°53'W., 116 lks. dist.,
marked T 35 S R 26 E S 28^v BT.

A cedar 14 ins. dia., bears, N.61°10'W., 234 lks. dist.,
marked T 35 S R 26 E S 21^v BT.

No other bearing trees within limits; dig pits 18x18x12 ins.
in each sec. $5\frac{1}{2}$ ft. dist.; and raise a mound of earth 4 ft.
base, 2 ft. high W. of cor.

Land, rolling.

Soil, sandy loam litst. rate.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with scattering timber or dense undergrowth
on 80.00 chs.

CHAINS

September 12, 1911.

Eben B. Andrews
U.S. Transitman.

September 12: For solar observation see page 7 of these notes.

From the cor of secs. 21-22-27 and 28, I run

N. $89^{\circ}59'$ W., on random line bet. secs. 21 and 28.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.00 Intersect N. and S. line 3 lks. S. of the cor. of secs. 20-21-28 and 29.

Thence I run

S. $89^{\circ}58'$ E. on true line bet. secs. 21 and 28.

Over rolling mesa, through dense undergrowth.

21.20 Enter heavy timber, bears N. and S.

27.13 Brush fence bears NE. and SW.

40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground

for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 21 in N. half and S. 28 in S. half; from which

A pinyon 7 ins. dia., bears, N. $59^{\circ}20'$ E., 80 lks. dist., marked $\frac{1}{4}$ S 21 BT.

A pinyon 5 ins. dia., bears, S. $28^{\circ}49'$ E., 105 lks. dist., marked $\frac{1}{4}$ S 28 BT.

Leave heavy timber, bears NE. and SW., enter scattering timber and dense undergrowth.

76.87 Cedar 18 ins. dia. on line, marked 2 notches on E. and W.

80.00 The cor. of secs., 21-22-27 and 28.

Land, rolling.

Soil, sandy loam, 1 st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with dense timber or scattering timber and dense undergrowth on 80.00chs.

Thence I run

N. $0^{\circ}02'$ E. bet. secs. 21 and 22.

CHAINS

Over rolling mesa, through scattering timber and dense undergrowth.

40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 21 in W. half and S 22 in E. half; from which

A cedar 10 ins. dia., bears, N. 24° 39' E., 233 lks. dist., marked $\frac{1}{4}$ S 22 BT.

A cedar 9 ins. dia., bears, S. 86° 43' W., 216 lks. dist., marked $\frac{1}{4}$ S 21 BT.

59.48 Ridge, bears, NE. and SW.

80.00 Set an iron post 3ft. long, 2 ins. dia., 24 ins. in the ground

for cor. of secs. 15-16-21 and 22, marked on brass cap, T 35 S S 16 in NW.

R 26 E S 15 in NE.

S 22 in SE. and

S 21 in SW. quadrant; from which

A cedar 14 ins. dia., bears, S. 31° 02' E., 60 lks. dist., marked T 35 S R 26 E S 22 BT.

No other bearing trees within limits; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist.; and raise a mound of earth 4ft. base, 2 ft. high W. of cor.

Land, rolling.

Soil, sandy loam and loose rock, 2nd. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with scattering timber and dense undergrowth on 80.00chs.

Thence I run

N. 89° 58' W. on random line bet. secs. 16 and 21.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.98 Intersect N. and S. line 9 lks. S. of the cor. of secs. 16-17-20 and 21.

Thence I run

S. 89° 54' E. on true line bet. secs. 16 and 21.

Subdivision of T. 35 S., R. 26 E.

CHAINS

Over rolling mesa, through dense undergrowth.

13.87 Enter scattering timber.

25.67 Ridge, bears, NW and SE.

39.99 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 16 in N. half and S 21 in S. half; dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

79.98: The cor. of secs. 15-16 21 and 22.

Land, rolling.

Soil, sandy loam, 2 nd. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with scattering timber or dense undergrowth on 80.00chs.

September 12, 1911.

September 13: For solar observations see page 17 of these notes:

Thence I run

N. 0°02'E. bet. secs. 15 and 16.

Over rolling mesa, through scattering timber and dense undergrowth.

40.00 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 16 in W. half and S 15 in E. half; from which

A cedar 9ins. dia., bears, S. 35°28'E., 78 lks. dist., marked $\frac{1}{4}$ S 15 BT.

A pinyon 5ins. dia., bears, S. 83°58'W., 182 lks. dist., marked $\frac{1}{4}$ S 16 BT.

80.00 Set an iron post 3ft. long 2ins. dia., 24ins. in the ground for cor. of secs. 9-10-15 and 16, marked on brass cap,

T 35 S S 9 in NW.

R 26 E S 10 in NE.

S 15 in SE. and

CHAINS

S 16 in SW. quadrant; from which
 A cedar 8 ins. dia., bears, N. 2° 59' E., 20 lks. dist.,
 marked T 35 S R 26 E S 10 BT.
 A cedar 7 ins. dia., bears, S. 59° 21' E., 79 lks. dist.,
 marked T 35 S R 26 E S 15 BT.
 A cedar 7 ins. dia., bears, S. 83° 55' W., 136 lks. dist.,
 marked T 35 S R 26 E S 16 BT.
 A cedar 10 ins. dia., bears, N. 20° 06' W., 136 lks. dist.,
 marked T 35 S R 26 E S 19 BT.

Land, rolling.

Soil, sandy loam, 1 st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with scattering timber and dense undergrowth
 on 80.00 chs.

Thence I run

N. 89° 54' W. on random line bet. secs. 9 and 16.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.98 Intersect N. and S. line 16 lks. N. of the cor. of secs.
 8-9-16 and 17.

Thence I run

N. 89° 59' E. bet. secs. 9 and 16, on true line.

Abrupt ascent over sandstone ledges, through heavy timber.

6.75 Top of ledges, 100 ft. high, bear, NE. and SW.

Gradual ascent.

9.90 Spur, projects N.

Descend.

11.86 Top of ledges, 100 ft. high, bear, NW. and SE.

Abrupt descent.

29.79 Ravine, 150 ft. deep, 300 ft. wide, drains NW. into Coal Bed
 Canon.

Abrupt ascent.

35.74 Top of ledges, 100 ft. high, bear, NW. and SE.

CHAINS

- Over rolling mesa.
- 39.99 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S $\overset{\vee}{9}$ in N. half, and S $\overset{\vee}{16}$ in S. half; from which
- A pinyon 13 ins. dia., bears, N. $5^{\circ}48'$ E., 32 lks. dist., marked $\frac{1}{4}$ S $\overset{\vee}{9}$ BT.
- A cedar 7 ins. dia., bears, S. $31^{\circ}13'$ E., 52 lks. dist., marked $\frac{1}{4}$ S $\overset{\vee}{16}$ BT.
- 48.00 Leave heavy timber, enter scattering timber and dense undergrowth.
- 79.98 The cor. of secs. 9-10-15 and 16.
- Land, mountainous and rolling.
- Soil, sandy loam on mesa, 2nd. rate, balance sandstone ledges, 4th. rate.
- Subsoil, sandstone.
- Timber, cedar and pinyon.
- Undergrowth, sagebrush.
- Mountainous land, densely timbered land or land covered with dense undergrowth on 79.98chs.

September 13, 1911.

Melvin H. Peck
U.S. Transitman.

September 14: For solar observation see page 41 of these notes.

From the cor. of secs. 9-10-15 and 16, I run

N. $0^{\circ}02'$ E. bet. secs. 9 and 10.

Over rolling mesa, through scattering timber and dense undergrowth.

- 37.00 Leave timber.
- 39.60 Ravine, 30ft. deep, 100ft. wide, drains, W.
- 40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S $\overset{\vee}{9}$ in W. half, and S $\overset{\vee}{10}$ in E. half; dig pits 18x18x12 ins. N. and S. of post 3ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

CHAINS

- 46.00 Leave dense undergrowth, enter heavy timber, bears E. and W.
- 80.00 Set an iron post 3ft. long, 2ins. dia., 24ins. in the ground for cor. of secs. 3-4-9 and 10, marked on brass cap,
- T 35 S S 4 in NW.
- R 26 E S 3 in NE.
- S 10 in SE. and
- S 9 in SW. quadrant; from which
- A pinyon 9ins. dia., bears, N. $7^{\circ}40'$ E., 19 lks. dist., marked T 35 S R 26 E S 3 BT.
- A cedar 14ins. dia., bears, S. $28^{\circ}05'$ E., 87 lks. dist., marked T 35 S R 26 E S 10 BT.
- A pinyon 7ins. dia., bears, S. $40^{\circ}32'$ W., 51 lks. dist., marked T 35 S R 26 E S 9 BT.
- A cedar 18ins. dia., bears, N. $50^{\circ}30'$ W., 40 lks. dist., marked T 35 S R 26 E S 4 BT.

Land, rolling.

Soil, sandy loam and loose rock, 2nd. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with heavy timber or land covered with dense undergrowth on 80.00chs.

September 14, 1911.

September 15: At 7h 56m, a.m., l.m.t., I set off $37^{\circ}48'$ N. on the lat. arc, $3^{\circ}20'$ N' on the decl. arc, and determine a meridian with the solar at the cor. of secs. 3-4-9 and 10, Thence I run

S. $89^{\circ}59'$ W. on random line bet. secs. 4 and 9.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.00 Intersect N. and S. line 2 lks. S. of the cor. of secs. 4-5-8 and 9.

Thence I run

East on true line bet. secs. 4 and 9.

Descend, through heavy timber.

1.15 Ravine, 30ft. deep, 100ft. wide, drains, S.

CHAINS

- Abrupt ascent over sandstone ledges.
- 4.30 Top of ledges, 100ft. high, bear NW. and SE.
Ascend.
- 6.40 Top of ledges 100ft. high, bear NE. and SW.
Abrupt descent.
- 11.30 Foot of ledges.
Gradual descent.
- 40.00 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S $\frac{1}{4}$ in N. half, and S 9^{\vee} in S. half; from which
A cedar 6 ins. dia., bears, N. $15^{\circ}00'$ W., 27 lks. dist., marked $\frac{1}{4}$ S $\frac{1}{4}$ BT.
A cedar 7 ins. dia., bears, S, $10^{\circ}15'$ W., 15 lks. dist., marked $\frac{1}{4}$ S 9^{\vee} BT.
- 44.10 Ravine, 50ft. deep, 200ft. wide, in bottom of Coal Bed Canon, drains SW.
Ascend.
- 57.30 Begin abrupt ascent over sandstone ledges.
- 65.55 Top of ledges, 100ft. high, bear, NE. and SW.
Gradual ascent.
- 80.00 The cor. of secs. 3-4-9 and 10.
Land, mountainous.
Soil, sandstone ledges and loose rock, 4th. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Mountainous, densely timbered land on 80.00chs.
-
- Thence I run
N. $0^{\circ}02'$ E. on random line bet. secs. 3 and 4.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.04 Intersect N. bdy. of Tp. 9 lks. W. of the re-established cor. of secs. 3-4-33 and 34, heretofore described.
Thence I run
S. $0^{\circ}06'$ W. on true line bet. secs. 3 and 4.
Over rolling land, through dense undergrowth.

Subdivision of T. 35 S., R. 26 E.

CHAINS	
5.00	Leave dense undergrowth, enter heavy timber, bears, E. and W.
38.16	Top of sandstone ledges, 200ft. high, bear E. and W. Abrupt descent.
40.04	Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap; $\frac{1}{4}$ S 4^{\vee} in W. half, and S 3^{\vee} in E. half; from which A cedar 6 ins. dia., bears, N. $85^{\circ}00'$ E., 22 lks. dist., marked $\frac{1}{4}$ S 3^{\vee} BT. A cedar 10 ins. dia., bears, S. $87^{\circ}30'$ W., 21 lks. dist., marked $\frac{1}{4}$ S 4^{\vee} BT.
42.30	Foot of ledges. Gradual descent.
68.05	Ravine, 50ft. deep, 200ft. wide, in the bottom of Coal Bed Canon, drains SW. Abrupt ascent over sandstone ledges.
79.80	Top of ledges, 200ft. high, bear E. and W. Gradual ascent.
80.04	The cor. of secs. 3-4-9 and 10. Land, mountainous, and rolling. Soil, sandy loam on mesa, 2nd. rate; balance sandstone ledges and loose rock, 4th. rate. Subsoil, sandstone. Timber, cedar and pinyon. Undergrowth, sagebrush. Mountainous land, densely timbered land, or land covered with dense undergrowth on 80.04chs.
	September 15, 1911.
	September 11: For solar observation see page 23 of these notes. From the re-established standard cor. of secs. 34 and 35, heretofore described, on S. bdy. of Tp., I run N. $0^{\circ}03'$ E. bet. secs. 34 and 35. Over rolling land, through dense undergrowth.
2.40	Wash, 10ft. deep, 20ft. wide, drains NW.
8.50	Ravine, 20 ft. deep, 100ft. wide, in the bottom of

CHAINS	
	Monument Canon, drains SW. Ascend.
10.40	Leave dense undergrowth, enter heavy timber, bears, NE. and SW.
37.40	Begin abrupt ascent over sandstone ledges.
40.00	Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 34 in W. half, S 35 in E. half; from which A cedar 10 ins. dia., bears, N. 77° 30' E., 35 lks. dist., marked $\frac{1}{4}$ S 35 BT. A cedar 8 ins. dia., bears, S. 82° 40' W., 110 lks. dist., marked $\frac{1}{4}$ S 34 BT.
43.80	Top of ledges, 100ft. high, bear, NE. and SW. Leave heavy timber, bears, NE. and SW., enter dense undergrowth. Over rolling mesa.
80.00	Set an iron post 3ft. long 2 ins. dia., 24 ins. in the ground for cor. of secs. 26-27-34 and 35, marked on brass cap, T 35 S S 27 in NW. R 26 E S 26 in NE. S 35 in SE. and S 34 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high W. of cor. Land, mountainous and rolling. Soil, sandy loam on mesa, 2nd. rate, balance sandstone ledges and loose rock, 4th. rate. Subsoil, sandstone. Timber, cedar and pinyon. Undergrowth, sagebrush. Mountainous land, densely timbered land or land covered with dense undergrowth on 80.00chs.
	Thence I run West on random line bet. secs. 27 and 34.
40.00	Set temp. $\frac{1}{4}$ sec. cor.

Subdivision of T. 35 S., R. 26 E.

- CHAINS
- 5.00 Leave dense undergrowth, enter heavy timber, bears, E. and W.
- 38.16 Top of sandstone ledges, 200ft. high, bear E. and W.
Abrupt descent.
- 40.04 Set an iron post 3ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 4^{\vee} in W. half, and S 3^{\vee} in E. half; from which
A cedar 6 ins. dia., bears, N. $85^{\circ}00'$ E., 22 lks. dist., marked $\frac{1}{4}$ S 3^{\vee} BT.
A cedar 10 ins. dia., bears, S. $87^{\circ}30'$ W., 21 lks. dist., marked $\frac{1}{4}$ S 4^{\vee} BT.
- 42.30 Foot of ledges.
Gradual descent.
- 68.05 Ravine, 50ft. deep, 200ft. wide, in the bottom of Coal Bed Canon, drains SW.
Abrupt ascent over sandstone ledges.
- 79.80 Top of ledges, 200ft. high, bear E. and W.
Gradual ascent.
- 80.04 The cor. of secs. 3-4-9 and 10.
Land, mountainous, and rolling.
Soil, sandy loam on mesa, 2nd. rate, balance sandstone ledges and loose rock, 4th. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Undergrowth, sagebrush.
Mountainous land, densely timbered land, or land covered with dense undergrowth on 80.04chs.
- September 15, 1911.
-
- September 11: For solar observation see page 23 of these notes. From the re-established standard cor. of secs. 34 and 35, heretofore described, on S. bdy. of Tp., I run N. $0^{\circ}03'$ E. bet. secs. 34 and 35.
Over rolling land, through dense undergrowth.
- 2.40 Wash, 10ft. deep, 20ft. wide, drains NW.
- 8.50 Ravine, 20 ft. deep, 100ft. wide, in the bottom of

CHAINS

Land, rolling. Soil, sandy loam, 1 st. rate. Subsoil, sandstone. Timber, cedar and pinyon. Undergrowth, sagebrush. Land covered with scattering timber or land covered with dense undergrowth on 15.42chs. September 11, 1911.

September 12: For solar observation see page 25 of these notes. From the cor. of secs. 26-27-34 and 35, I run N. 0°03'E. bet. secs. 26 and 27. Over rolling mesa, through dense undergrowth.

40.00 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 27 in W. half, S 26 in E. half; dig pits 18x18x12 ins. N. and S. of the post 3ft. dist.; and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high W. of the cor.

80.00 Set an iron post 3ft. long 2ins. dia., 24ins in the ground for cor. secs. 22-23-26 and 27, marked on brass cap, T 35 S S 22 in NW. R 26 E S 23 in NE. S 26 in SE. and S 27 in SW. quadrant; dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist.; and raise a mound of earth 4ft. base, 2 ft. high W. of the cor.

Land, rolling. Soil, sandy loam, 1 st. rate. Subsoil, sandstone. No timber. Undergrowth, sagebrush. Land covered with dense undergrowth on 80.00chs.

Sept. 12: At 11h 57m, a.m., l.m.t. I set off 424' N. on the decl. arc and at the cor. of secs. 22-23-26 and 27, observe the sun

Subdivision of T. 35 S., R. 26 E.

CHAINS

on the meridian, the resulting lat. is $37^{\circ}45'N$.

Thence I run

$N.89^{\circ}59'W$, on random line bet. secs. 22 and 27.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.00 Intersect N. and S. line 20 lks. N. of the cor. of secs.

21-22-27 and 28.

Thence I run

$N.89^{\circ}52'E$. on true line bet. secs. 22 and 27.

Over rolling mesa, through scattering timber and dense undergrowth.

40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground

for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22 in N. half, and S 27 in S. half; from which

A pinyon 12 ins. dia., bears, $N.34^{\circ}30'W$, 51 lks. dist., marked $\frac{1}{4}$ S 22 BT.

A pinyon 6 ins. dia., bears, $S.60^{\circ}10'E$, 18 lks. dist., marked $\frac{1}{4}$ S 27 BT.

52.00 Leave timber.

71.70 Wagon road, bears, NE. and SW.

80.00 The cor. of secs. 22-23-26 and 27.

Land, rolling.

Soil, sandy loam, 1 st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with scattering timber or dense undergrowth on 80.00chs.

From the cor. of secs. 22-23-26 and 27, I run

East on true line bet. secs. 23 and 26.

Over rolling mesa, through dense undergrowth.

15.23 Intersect Utah-Colorado state line at $S.0^{\circ}09'E$, 45.02chs.

from the 50 M. cor., which is a cedar stump, marked and witnessed as described by the Surveyor General.

Set an iron post 3ft. long, 2 ins. dia., 24 ins. in the ground for closing cor. of secs. 23 and 26, marked on

CHAINS

brass cap,
 CC \checkmark C in E. half,
 U \checkmark in W. half.
 T 35 S S \checkmark 23 in NW. and
 R 26 E S \checkmark 26 in SW. quadrant; dig pits 24x18x12 ins.
 crosswise on each line, N. and S. 3 ft. dist., and W. 7 ft.
 of post
 dist., and raise a mound of earth 4 ft. base, 2 ft. high
 W. of cor.
 Land, rolling.
 Soil, sandy loam, 1 st. rate.
 Subsoil, sandstone.
 No timber.
 Undergrowth, sagebrush.
 Land covered with dense undergrowth on 15:23 cha.

From the cor. of secs. 22-23-26 and 27, I run

N0°03'E. bet. secs. 22 and 23.

Over rolling mesa, through dense undergrowth.

- 5.30 Wagon road, bears, NE. and SW.
- 38.60 Enter scattering timber.
- 40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground
 for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22 in W. half,
 and S \checkmark 23 in E. half; from which
 A cedar 11 ins. dia., bears, S. 52°30'E. .25 lks. dist.,
 marked $\frac{1}{4}$ S \checkmark 23 BT.
 A pinyon 10 ins. dia., bears, S. 54°05'W., .85 lks. dist.,
 marked $\frac{1}{4}$ S 22 BT.
- 76.00 Leave scattering timber.
- 80.00 Set an iron post 3ft. long 2 ins. dia. (24 ins. in the ground
 for cor. of secs. 14-15-22 and 23, marked on brass cap,
 T 35 S S 15 \checkmark in NW.
 R 26 E S \checkmark 14 in NE.
 S 23 in \checkmark SE. and
 S 22 in SW. quadrant; dig pits 18x18x12 ins. in each
 sec. 5 $\frac{1}{2}$ ft. dist.; and raise a mound of earth 4 ft. base,

CHAINS

2 ft. high W. of cor.

Land, rolling.

Soil, sandy loam, 1 st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with scattering timber or dense undergrowth on 80.00chs.

September 12, 1911.

September 13: At 11h⁵⁶m, a.m., 1.m.t., I set off 4°01' N. on the decl. arc, and at the cor. of secs. 14-15-22 and 23, observe the sun on the meridian, the resulting lat. is 37°46' N.

Thence I run

S. 89°53' W., on random line bet. secs. 15 and 22.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.00 Intersect N. and S. line 18 lks. S. of the cor. of secs 15-16-21 and 22,

Thence I run

N. 89°55' E. on true line bet. secs. 15 and 22.

Over rolling mesa, through scattering timber and dense undergrowth.

12.50 Leave dense undergrowth, enter heavy timber, bears, NE. and SW.

21.00 Ridge, bears, NE. and SW.

40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 15' in N. half, and S 22' in S. half; from which

A cedar 5 ins. dia., bears, N. 43°50' E., 68 lks. dist., marked $\frac{1}{4}$ S 15' BT.

A cedar 6 ins. dia., bears, S. 21°40' W., 153 lks. dist., marked $\frac{1}{4}$ S 22' BT.

72.00 Leave heavy timber, bears, NE. and SW. Enter dense undergrowth.

80.00 The cor. of secs. 14-15-22 and 23.

Subdivision of T. 35 S., R. 26 E.

CHAINS

Land, rolling.
 Soil, sandy loam, 1 st. rate.
 Subsoil, sandstone.
 Timber, cedar and pinyon.
 Undergrowth, sagebrush.
 Densely timbered land or land covered with dense under-
 growth on 80.00chs.

At 3h⁵⁶m, p.m., l.m.t., I set off 37°46'N. on the lat. arc, and 3°58'N. on the decl. arc, and at the cor. of secs. 14-15-22 and 23. determine a meridian with the solar.

Thence, I run East on true line bet. secs. 14 and 23.

Over rolling mesa, through dense undergrowth. Intersect Utah-Colorado state line at North 34.98chs. from the 50 M. cor., heretofore described.

15.16

Set an iron post 3ft. long 2ins. dia., 24ins. in the ground for closing cor. of secs. 14 and 15, marked on brass cap C C in E. half, U in W. half, T 35 S S 14 in NW. and R 26 E S 23 in SW. quadrant; dig pits 24x18x12 ins.

crosswise on each line, N. and S. 3 ft. dist., and W. 7 ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, rolling.
 Soil, sandy loam, 1 st. rate.
 Subsoil, sandstone.
 No timber.
 Undergrowth, sagebrush.
 Land covered with dense undergrowth on 15.16chs.

September 13, 1911.

September 14: At 7h⁵⁶m, a.m., l.m.t., I set off 37°46'N. on the lat. arc, 3°43'N. on the decl. arc, and determine a

Subdivision of T. 35 S., R. 26 E.

CHAINS

meridian with the solar, at the cor. of secs. 14, 15, 22 & 23.

Thence I run

N. 0° 03' E. bet. secs. 14 and 15.

Over rolling mesa, through dense undergrowth.

20.00 Leave dense undergrowth, enter heavy timber, bears, E. and W.

40.00 Set an iron post 3ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{2}$ S 15 in W. half, and S 14 in E. half; from which

A cedar 10 ins. dia., bears, N. 66° 30' E., 34 lks. dist., marked $\frac{1}{4}$ S 14 BT.

A cedar 15 ins. dia., bears, S. 67° 22' W., 22 lks. dist., marked $\frac{1}{4}$ S 15 BT.

68.40 Ridge, bears, NE. and SW.

80.00 Set an iron post 3ft. long 2 ins. dia., 24 ins. in the ground for cor. secs 10-11-14 and 15, marked on brass cap,

T 35 S S 10 in NW.

R 26 E S 11 in NE.

S 14 in SE. and

S 15 in SW. quadrant; from which.

A pinyon 8 ins. dia., bears, N. 61° 00' E., 161 lks. dist., marked T 35 S R 26 E S 11 BT.

A pinyon 20 ins. dia., bears, S. 71° 35' E., 150 lks. dist., marked T 35 S R 26 E S 14 BT.

A pinyon 7 ins. dia., bears, S. 35° 55' W., 72 lks. dist., marked T 35 S R 26 E S 15 BT.

A cedar 7 ins. dia., bears, N. 9° 50' W., 262 lks. dist., marked T 35 S R 26 E S 10 BT.

Land, rolling.

Soil, sandy loam, 1 st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Densely timbered land or land covered with dense undergrowth on 80.00chs.

CHAINS

Thence I run

S. 89°55'W. on random line bet. secs. 10 and 16.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.00 Intersect N. and S. line 11 lks. S. of the cor of secs. 9-10-15 and 16.

Thence I run

East $\frac{1}{2}$ W. on true line bet. secs. 10 and 15.

Over rolling mesa, through scattering timber and dense undergrowth.

35.00 Leave timber.

40.00 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 10 in N. half, and S 15 in S. half; dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of the cor.

47.00 Enter heavy timber, bears, N. and S.

80.00 The cor of secs. 10-11-14 and 15.

Land, rolling.

Soil, sandy loam, 1 st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with dense undergrowth or densely timbered land on 80.00chs.

Sept. 14: At 11h 56m, a.m., l.m.t. I set off 3°38'N. on the decl. arc, and at the cor. of secs. 10-11-14 and 15, observe the sun on the meridian, the resulting lat. is 37°47'N.

Thence I run

East on true line bet, secs. 11 and 14.

Over rolling mesa, through heavy timber.

15.06 Intersect Utah-Colorado state line at N. 0°04'W., 34.46chs. from the 51 M. cor., which is a cedar post, marked and witnessed as described by the Surveyor General.

Set an iron post 3ft. long 2ins. dia., 24ins. in the

CHAINS

ground for closing cor of secs. 11 and 14, marked on brass cap,

CC C in E. half,

U in W. half,

T 35 S S 11 in NW. and

R 26 E S 14 in SW. quadrant; from which

A cedar 6 ins. dia., bears, N. 60° 26' W., 35 lks. dist.,

marked T 35 S R 26 E S 11 BT.

A pinyon 7 ins. dia., bears, S. 24° 35' W., 34 lks. dist.,

marked T 35 S R 26 E S 14 BT.

Land, rolling.

Soil, sandy loam, 1 st. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Densely timbered land on 15.06 chs.

September 14, 1911.

September 15: For solar observation see page 32 of these notes. From the cor of secs. 10-11-14 and 15, I run

N. 0° 03' E. bet. secs. 10 and 11

Over rolling mesa, through heavy timber.

40.00 Set an iron post 3 ft. long 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 10 in W. half, and S 11 in E. half; from which

A cedar 7 ins. dia., bears, S. 55° 40' E., 222 lks. dist.,

marked $\frac{1}{4}$ S 11 BT.

A pinyon 5 ins. dia., bears, N. 74° 35' W., 135 lks. dist.,

marked $\frac{1}{4}$ S 10 BT.

56.00 Leave heavy timber, bears, E. and W. Enter dense undergrowth.

80.00 Set an iron post 3 ft. long 2 ins. dia., 24 ins. in the ground for cor. of secs. 2-3-10 and 11, marked on brass cap,

T 35 S S 3 in NW.

R 26 E S 2 in NE.

S 11 in SE. and

Subdivision of T. 35 S., R. 26 E.

CHAINS

S 10[✓] in SW. quadrant; dig pits 18x18x12 ins. in each sec. 5¹/₂ ft. dist.; and raise a mound of earth 4 ft. base 2 ft. high, W. of cor. Land, rolling. Soil, sandy loam, 2nd. rate. Subsoil, sandstone. Timber, cedar and pinyon. Undergrowth, sagebrush. Densely timbered land or land covered with dense undergrowth on 80.00chs.

Thence I run West on random line bet. secs. 3 and 10. 40.00 Set temp. 1/4 sec. cor. 80.00 Intersect N. and S. line 11 lks. N. of the cor. of secs. 3-4-9 and 10. Thence I run N. 89°55'E. on true line bet. secs. 3 and 10. Over rolling mesa, through heavy timber. 40.00 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for 1/4 sec. cor., marked on brass cap, 1/4 S 3[✓] in N. half, and S 10[✓] in S. half; from which
 A cedar 9ins. dia., bears N. 63°35'E., 44 lks. dist., marked 1/4 S 3 BT.
 A pinyon 12ins. dia., bears S. 23°05'W., 80 lks. dist., marked 1/4 S 10 BT.
 74.00 Leave heavy timber, bears, N. and S., enter dense undergrowth.
 80.00 The cor. of secs. 2-3-10 and 11.

Land, rolling. Soil, sandy loam, 2nd. rate. Subsoil, sandstone. Timber, cedar and pinyon. Undergrowth, sagebrush. Densely timbered land or land covered with dense undergrowth on 80.00 chs.

CHAINS

September 15: At 11 h. 56 m. a. m., 1. m. t., I set off 3° 15' N. on decl. arc, and at the cor. of secs. 2-3-10 and 11, observe the sun on the meridian, the resulting lat. is 37° 48' N.

Thence I run

East on true line bet. secs. 2 and 11.

Over rolling mesa, through dense undergrowth.

8.40 Enter scattering timber.

14.90 Intersect Utah-Colorado state line at S. 0° 03' E.; 46.86 chs. from the 53 M. cor., which is a sandstone; marked and witnessed as described by the surveyor general.

Set an iron post 3ft. long 2 ins. dia., 2 1/4 ins. in the ground for closing cor. of secs. 2 and 11, marked on brass cap,

CC C in E. half,

U in W. half,

T 35 S S 2 in NW. and

R 26 E S 11 in SW. quadrant; from which

A pinyon 7 ins. dia., bears, S. 55° 35' W.; 112 lks. dist., marked T 35 S R 26 E S 11 BT.

A pinyon 6 ins. dia., bears, N. 68° 30' W.; 17 lks. dist.,

marked T 35 S R 26 E S 2 BT.

Land, rolling.

Soil, sandy loam, 2nd. rate.

Subsoil, sandstone.

Timber, cedar and pinyon.

Undergrowth, sagebrush.

Land covered with scattering timber or dense undergrowth on 14.90 chs.

From the cor. of secs. 2-3-10 and 11, I run

N. 0° 03' E., on random line bet. secs. 2 and 3.

40.00 Set temp. 1/4 sec. cor.

80.09 Intersect N. bdy. of Tp., 9 lks. W. of the re-established cor. of secs. 2-3-34 and 35, heretofore described.

Thence I run, over rolling land,

S. 0° 07' W. on true line bet. secs. 2 and 3.

- CHAINS
- 1.50 Abrupt descent over sandstone ledges, 100ft. high, bear, NE. and SW., through heavy timber.
- 27.90 Ravine, 30ft. deep, 200ft. wide, in the bottom of Coal Bed Canon, drains, SW.
Abrupt ascent over sandstone ledges.
- 40.09 Set an iron post 3ft. long 1 in. dia., 26ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 3 $\frac{1}{2}$ in W. half, and S 2 $\frac{1}{2}$ in E. half; from which
A cedar 7ins. dia., bears, S. 19° 15' E., 64 lks. dist., marked $\frac{1}{4}$ S $\frac{1}{2}$ BT.
A cedar 11ins. dia., bears, S. 21° 30' W., 81 lks. dist., marked $\frac{1}{4}$ S $\frac{3}{4}$ BT.
- 43.80 Top of ledges, 100ft. high, bear, NE. and SW.
Gradual ascent.
- 52.00 Ridge, bears, NE. and SW.
Descend.
- 75.80 Leave heavy timber, bears, E. and W. Enter dense undergrowth.
- 80.09 The cor. of secs. 2-3-10 and 11.
Land, mountainous.
Soil, sandy loam, loose rock and sandstone ledges, 4th. rate.
Subsoil, sandstone.
Timber, cedar and pinyon.
Undergrowth, sagebrush.
Mountainous land, densely timbered land or land covered with dense undergrowth on 80.09chs.

September 15, 1911

Eben B. Andrews
U.S. Transitman

GENERAL DESCRIPTION.

This fractional township is situated on the Utah-Colorado state boundary line and the surface is generally a level

or gently rolling mesa, cut by deep canyons, all of which drain into Montezuma Canyon which is west of this township.

The soil of the level or rolling mesa is generally a sandy loam from 4 to 36 ins. in depth, with a subsoil of solid sandstone and is unfit for agricultural purposes on account of the shallow soil.

Along the canyons a heavy growth of cedar and pinon is found while on the balance a dense growth of undergrowth scattering timber and grasses are found, making this an excellent stock range.

The canyons, which are cut through the solid sandstone, are deep, with steep sides, covered with a scattering growth of cedar and pinon timber.

The only water in this township is Oak Spring, in S $\frac{1}{2}$ of sec. 28, this spring could not be located from any point on any line.

There are no settlers in this township, the Scott and Campbell cabin, and corral near Oak Springs, is used by local cattlemen as headquarters; the location of said cabin and corral could not be determined from any point on any line.

The wire fences in secs. 17, 20, 21, 27 and 28, were constructed by cattlemen for pasture purposes.

There are no indications of coal, oil or minerals found in this township.

Melvin H. Fisher

Eben B. Andrews
U.S. Transitmen

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 _____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oaths of transitmen see Book "Z" T. 32 S., R. 26 E.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191 _____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, March 19, 1914.

The foregoing field notes of the survey of the subdivisional lines of Township No. 35 South, Range No. 26 East of the Salt Lake Base and Meridian, Utah

executed by Melvin D. Heist and Eben B. Andrews
their special instructions dated May 22, 1911, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Thomas Hill
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

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FIELD
FEB 10 1912
[Signature]

BOOK A-394
"M"

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FIELD NOTES

RETRACEMENT
OF THE SURVEY OF THE

UTAH - COLORADO

STATE BOUNDARY LINE

BETWEEN

THE 47TH and the 72ND MILE CORNERS.

TOWNSHIPS 32, 33, 34, and 35 SOUTH

RANGE 36 EAST

Of the Salt Lake Base and Meridian,

In the State of Utah

EXECUTED BY

Melvin D. Heist and Eben B. Andrews

In the capacity of U. S. Surveyors, under instructions dated May 22, 1911,
issued by the United States Surveyor General to govern surveys included in
Group No. 12, which were approved by the Commissioner of the General Land
Office, June 17, 1911, pursuant to authority contained in the Act of
Congress dated _____, 1911

Survey commenced September 8, 1911

Survey completed November 9, 1911

25-10-99 ✓

BOOK A-394

INDEX DIAGRAM.

Township _____, Range _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

72 M.
13
71 M.
12
70 M.
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69 M.
12
68 M.
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58 M.
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57 M.
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56 M.
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55 M.
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54 M.
4
53 M.
6-161
4
52 M.
4
51 M.
3
50 M.
3
49 M.
2
48 M.
2
47 M.

Survey commenced September 8, 1911, and executed with the instrument described in book "D" of this survey.

I examine the adjustments of the transit and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m., and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows;

At the 47 Mile Cor. on the Utah-Colorado State Boundary line, which is a sandstone 12x9x9 ins. above ground, and marked as described by the surveyor general, in approximate lat. $37^{\circ}43'N.$, longitude $109^{\circ}05'W.$, I set off $37^{\circ}43'N.$ on lat. arc, $5^{\circ}58'N.$ on decl. arc, and at 3h.58m., p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station. At 8h.21m., p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

September 8, 1911.

September 9: At 7a.m., I lay off the azimuth of Polaris, $1^{\circ}28'$ to the east, and mark the meridian thus determined, by cutting a small groove in the stone set last evening on which the meridian falls 0.3 ins. west of the mark determined by the solar.

At 7h.58m., a.m., l.m.t., I set off $37^{\circ}43'N.$ on lat. arc, $5^{\circ}37'N.$ on decl. arc, and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.2 ins. west of the meridian established by the Polaris observation. The solar apparatus, by p.m. and a.m. observations, defines positions for meridians respectively about $0^{\circ}16'$ east and $0^{\circ}11'$ west, of the meridian established by Polaris observations; there, I conclude that the adjustments of the instrument are satisfactory.

RETRACEMENT OF THE UTAH-COLORADO STATE BOUNDARY LINE

CHAINS

The magnetic bearing of the true meridian at 8h.30m., a.m. is $N.15^{\circ}35'W.$, the angle thus determined gives the mag. decl. $15^{\circ}35'E.$

From the 47th. mile cor., already described, I run $N.0^{\circ}09'W.$, retracing the 48th. mile.

Descend over rolling and rocky land, through heavy timber.

5.20 Wash, 25 lks. wide, 10 ft. deep, course NW.

36.00 Leave timber, bears NE. and SW.

Enter dense undergrowth.

53.60 Wash, 150 lks. wide, 20 ft. deep, in bottom of Monument Canyon, course SW.

Ascend.

57.00 Enter heavy timber, bears NE. and SW.

80.10 Intersect the 48th. Mile cor., which is a pinon tree, 8 ins. diam., marked U on W., C on E., 1885 on N. and 48 M. on S. face.

The course of this line is therefore $N0^{\circ}09'W.$ and the distance 80.10 chs.

Land, rolling.

Soil, rocky, 3rd. rate; subsoil, rock.

Timber, cedar and pinon.

Undergrowth, sage brush.

Heavily timbered land or land covered with dense undergrowth on 80.10 chs.

$N.0^{\circ}09'W.$, retracing the 49th. Mile.

Ascend over rocky land, through heavy timber.

17.10 Begin abrupt ascent over sandstone ledges, bearing NE. and SW.

21.50 Top of ledges, 100 ft. high, bearing NE. and SW.

Leave timber, bears NE. and SW.

Over rolling mesa, through dense undergrowth.

80.00 No trace can be found of the 49th. Mile cor.

September 9: At this cor. I set off $5^{\circ}33'N.$ on decl. arc, and at 11h.58m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}45'N.$

Thence I continue $N.0^{\circ}09'W.$

RETRACEMENT OF THE UTAH-COLORADO STATE BOUNDARY LINE

CHAINS

129.75 Wagon road, bears NE. and SW.

145.00 Enter scattering timber.

160.02 Intersect the 50 Mile Cor., which is a cedar stump, marked U on W., C on E., 1885 on N., and 50 M. on S. face.

The course of the 49th. and 50th. miles is therefore N. 0° 09' W., and the distance is 160.02 chs.

Land, mountainous and rolling.

Soil, rocky and broken ledges, 3rd. and 4th. rate on first 21.50 chs., balance, sandy loam, 1st. rate.

Subsoil, Sandstone.

Timber, pinon and cedar.

Undergrowth, dense sage brush.

Land covered with dense undergrowth or heavily timbered land on 160.02 chs.

September 9, 1911

September 13: At 7h. 56m., a.m., 1.m.t., I set off 37° 46' N. on lat. arc, 4° 06' W. on decl. arc, and determine a meridian with the solar at the 50th. Mile cor.

Thence I run

North, retracing the 51st. Mile.

Gradual ascent over rolling land, through scattering timber and dense undergrowth.

31.00 Leave timber.

55.00 Enter heavy timber, bears E. and W.

80.52 Intersect the 51 Mile Cor., which is a cedar post, 5 ins. diam., projecting 15 ins. above the ground, marked U on W.

C on E., 1885 on N. and 51 M. on S. face, with mound of stone around post.

The course of this line is therefore North, and the dist. 80.52 chs.

Land, rolling.

Soil, sandy loam, 1st. rate; Subsoil, gravel.

Timber, scattering cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth or heavily timbered land on 80.52 chs.

RETRACEMENT OF THE UTAH-COLORADO STATE BOUNDARY LINE.

CHAINS

North, retracing on 52nd. Mile.

Gradual ascent over rolling land, through heavy timber.

31.10 Low ridge, bears NE. and SW.

80.72 Fall 9¹/₂ lks. E. of the 52nd. Mile cor., which is a cedar post 5 ins. diam., projecting 21 ins. above the ground, marked U on W., C on E., 1885 on N. and 52 M on S. face.

The course of this line is therefore N. 0° 04' W., and the distance 80.72 chs.

Land, rolling.

Soil, sandy loam, 1st. rate. Subsoil, gravel.

Timber, cedar and pinon.

Heavily timbered land on 80.72 chs.

North, retracing the 53rd. Mile

Gradual descent over rolling land, through heavy timber.

9.00 Leave timber, bears E. and W.

Enter dense undergrowth.

31.00 Enter heavy timber, bears NW. and SE.

69.00 Ridge, bears NE. and SW.

Descend.

80.60 Fall 7¹/₂ lks. E. of the 53rd. Mile Cor., which is a sandstone 15x10x6 ins. above ground, marked U on W., C on E., 1885 on N. and 53 on S. face.

The course of the line is N. 0° 03' W. and dist. 80.60 chs.

Land, rolling.

Soil, sandy loam, 1st. rate; subsoil, gravel.

Timber, cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth or heavily timbered

land on 80.60 chs.

September 13, 1911

September 15: For latitude observation and solar observation for this date see pages 46 and 32, respectively of Subdivisions of T. 35 S., R. 26 E.

From the 53rd. Mile Cor.,

North, retracing on 54th. Mile.

RETRACEMENT OF THE UTAH-COLORADO STATE BOUNDARY LINE.

CHAINS	
	Descend abruptly over sandstone ledges, bearing NE. and SW., through heavy timber.
12.40	Ravine, 150 ft. deep, 3.00 chs. wide, course W.
54.25	Wash, 150 ft. wide, 30 ft. deep, in bottom of Coal Bed Canyon, 150 ft. deep, course SW.
	Ascend abruptly over sandstone ledges.
63.75	Top of ledges, bearing NW. and SE.
	Over rolling mesa.
80.57	Fall 7 lks. E. of the 54th. Mile Cor., which is a cedar post, 5 ins. diam., projecting 20 ins. above ground, marked U. on W. C on E., 1885 on N. and 54 on S. face.
	The course of this line is therefore N. 0° 03' W., and the dist., 80.57 chs.
	Land, mountainous and rolling.
	Soil, rocky and sandstone ledges 3rd. and 4th. rate on first 64.00 chs., balance, sandy loam, from 6' to 15 ins deep, 1st. and 2nd. rate.
	Subsoil, solid sandstone.
	Timber, cedar and pinon.
	Mountainous land or heavily timbered land on 80.57 chs.

	North, retracing on 55th. Mile.
	Gradual ascent over rolling land, through heavy timber.
22.00	Leave heavy timber, bears E. and W.
	Enter dense undergrowth and scattering timber.
42.30	Wash, 30 lks. wide, 10 ft. deep, course SE.
51.90	Leave timber.
20.00	No trace can be found of the 55th. Mile cor.
	I continue north.
160.00	No trace can be found of the 56th. Mile cor.
	I continue north,
240.00	No trace can be found of the 57th. mile cor.
	I continue north
304.50	Wash, 50 lks. wide, 25 ft. deep, head of Coal Bed Canyon, course SE.
321.96	Fall 56 lks. E. of the 58th. Mile cor., which is a sandstone

RETRACEMENT OF THE UTAH-COLORADO STATE BOUNDARY LINE

CHAINS

15x10x6 ins. above ground, marked C on E., U. on W., 1885 on N. and 58 M on S. half,

The course of this line is therefore N.0°06'W., and the distance 321.96 chs.

Land, rolling.

Sandy loam, from 12 to 18 ins. deep, 1st. rate.

Subsoil, gravel and rock.

Timber, cedar and pinon.

Undergrowth, sage brush.

Heavily timbered land or land covered with dense undergrowth on 321.96 chs.

September 15, 1911

September 21: For solar and latitude observations, for this date, pages 28 and 39, respectively of Subdivisions of T.34 S., R.26 E. Knowing the course of the line from connections made on the N. bdy. of T.34 S., R.26 E., I run

N.0°04'W, retracing the 59th. Mile.

Gradual ascent over rolling land, through dense undergrowth.

77.00 Wagon road, bears NE. and SW.

80.00 No trace can be found of the 59th. Mile cor.

I continue N.0°04'W.

107.50 Wagon road, bears NW. and SE.

112.02 Intersect the closing cor. of Tps. 33 and 34 S., R.26 E., heretofore described.

114.00 Enter scattering timber, bears E. and W.

126.12 Telephone line, bet. Monticello Utah, and Dolores, Colorado, bears E. and W.

131.90 Road, from Monticello, Utah to Dolores Colorado, bears NW. and SE.

145.00 Abrupt descent over sandstone ledges 20 ft. high, bears NW. and SE.

151.26 Bottom of Piute Draw 40 ft. deep, course SE.

161.28 Intersect the 60. Mile Cor., which is a sandstone boulder 8x6x6 ft., marked with a x on surface, 1885 on N., 60 M. on S., U on W. and C on E. side of cross.

RETRACEMENT OF UTAH-COLORADO STATE BOUNDARY LINE.

CHAINS THE Course of the 58th. and 59th. mile is therefore
 N. 0° 04' W., and the dist., is 161.28 chs.
 Land, rolling and mountainous.
 Soil, sandy loam, from 15 to 20 ins. deep on first 115.40
 chs. 1st. rate, balance, rocky loam from 10 to 15 ins.
 deep and sandstone ledges, 4th. rate.
 Subsoil, sandsoil.
 Undergrowth, dense sage brush.
 Timber, scattering cedar and pinon.
 Land covered with dense undergrowth or mountainous
 land on 161.28 chs.

September 21, 1911

Eben B. Andrews
 U.S. Transitman

September 24: Survey commenced, and executed with the
 instrument described in book "A", of this survey.
 I know the instrument to be in adjustment from recent
 observations made September 21 and 22, 1911, at the re-est-
 ablished cor. of secs. 4-5-32 and 33, on the S. bdy. of T. 33
 S., R. 26 E., and described in book "T" of this survey.
 At 7:52 a.m., l.m.t., I set off 37° 55' N. on lat. arc, 0° 09'
 S. on decl. arc, and determine a meridian with the solar, at
 the 60th. Mile Cor. on the Utah-Colorado State Boundary
 line, heretofore described.

Thence I run

North, retracing the 61st. Mile.

Abrupt ascent over rocky land, through dense undergrowth.

1.35 Top of abrupt ascent, bears NW. and SE.

Gradual ascent over rolling land.

5.00 Road, bears NW. and SE.

50.80 Enter heavy timber, bears E. and W.

60.00 No trace can be found of the 61st. Mile Cor.

I continue North

90.65 Leave timber, bears NW. and SE.

103.00 Enter scattering timber.

161.03 Fall 46 lks. W. of the 62nd. Mile Cor., which is a cedar post

CHAINS

5 ins. dia.; projecting 24 ins. above ground, marked C on E. U on W., 1885 on N. and 62 M on S. face.

The course of this line is therefore N. 0° 10' E., and the distance 161.03 chs.

Land, rolling.

Soil, rocky and rocky loam, 3rd. rate.

Subsoil, gravel.

Timber, cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth or heavily timbered land on 161.03 chs.

September 24: At this cor. I set off 0° 14' S. on decl. arc, and at 11h. 52m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 56' N.

North, retracing on 63rd. Mile.

Gradual ascent over rolling and rocky land, through scattering timber and dense undergrowth.

80.56

Intersect the 63rd. Mile Cor., which is a sandstone 15x10 x4 ins. above ground, marked C on E., U. on W., 1885 on N. and 63 M. on S. face.

The course of this line is therefore North and the distance 80.56 chs.

Land, rolling.

Soil, rocky loam, 3rd. rate.

Subsoil, gravel.

Timber, scattering cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth on 80.56 chs.

September 24, 1911

September 26: For solar and lat. see pages 36 and 38 respectively in subdivisions of T. 33 S., R. 26 E. Nook "T" of this survey.

North, retracing on 64th. mile.

RETRACEMENT OF THE UTAH-COLORADO BOUNDARY LINE

CHAINS

Gradual ascent over rolling and rocky land, through dense undergrowth and scattering timber.

80.51 Fall 14 lks. W. of the 64th. Mile Cor., which is a sandstone, 14x10x5 ins. above ground, marked C on E. face, U on W. face, 1885 on N. and 64M. on S. face.

The course of this line is therefore N. 0° 06' E., and the distance 80.51 chs.

Land, rolling.

Soil, rocky loam, 3rd. rate.

Subsoil, gravel.

Timber, scattering cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth on 80.51 chs.

September 26, 1911

September 28: For solar observation on this date, see page 40, of subdivisions of T. 33 S., R. 26 E., book "T" of this survey.

From the 64th. Mile Cor., I run

North, retracing the 65th. Mile Cor.

Gradual ascent over rolling and rocky land, through dense undergrowth and scattering timber.

80.45 Fall 82 lks. E. of the 65th. Mile Cor., which is a cedar post, 5 ins. diam., projecting 24 ins. above the ground, marked C on E., U. on W., 1885 on N. and 65M on S. face.

The course of this line is therefore N. 0° 35' W., and the distance 80.45 chs.

Land, rolling.

Soil, rocky loam, 3rd. rate. Subsoil, gravel.

Timber, scattering cedar and pinon.

Land covered with dense undergrowth on 80.45 chs.

On account of heavy rain no further work can be done on this date.

September 28, 1911

RETRACEMENT OF THE UTAH-COLORADO BOUNDARY LINE.

CHAINS

September 29: For solar and latitude observations for this date see pages 41 and 42, respectively of the Subdivisions of T.33 S., R.26 E., book "T", of this survey. From the 65 Mile Cor., I run

North, retracing the 66th. Mile.

Gradual ascent over rolling and rocky land, through scattering timber and dense undergrowth.

80.61 Fall 141 lks. E. of the 66th. Mile Cor., which is a cedar post, 5 ins. diam., projecting 23 ins. above the ground, marked C on E. half, U on W. half, 1885 on N. and 66 M. on S. half,

The course of this line is therefore N. 1°00' W., and the distance 80.62 chs.

September 29, 1911

November 3: For solar and latitude observations on this date see pages 27 and 29, respectively of the Subdivisions of T.32 S., R.26 E., book "Z¹", of this survey.

From the 66th. Mile Cor., I run

North, retracing the 67th. Mile.

Gradual ascent over rolling and rocky land, through dense undergrowth and scattering timber.

15.75 Begin abrupt descent over sandstone ledges, bearing NE. and SW.

Enter heavy timber, bears NE. and SW.

41.00 Enter bottom of Summit Canyon, 300 ft. deep, course NE. Over level land.

Leave timber, bears NE. and SW.

Enter dense undergrowth.

43.05 Wash of Summit Canyon, 40 lks. wide, 18 ft. deep, course NE.

45.10 Leave canyon.

Begin abrupt ascent over sandstone ledges, bearing NE. and SW.

Enter heavy timber, bearing NE. and SW.

83.20 Top of ledges, bearing NE. and SW.

Gradual ascent over rolling land.

RETRACEMENT OF THE UTAH-COLORADO BOUNDARY LINE.

CHAINS

83.24 Fall 170 lks. E. of the 67th. Mile Cor., which is a cedar, 6 ins. diam., 30 ins. high, marked C on E., U. on W., 1885 on N. and 67M on S. face.
 The course of this line is therefore N. 1° 10' W., and the distance 83.26 chs.
 Land, rolling, mountainous and level.
 Soil, rocky and sandstone ledges, 3rd. and 4th. rate, on 79.14 chs. balance, canyon bottom, sandy loam of great depth, 1st. rate.
 Subsoil, gravel and solid sandstone.
 Timber, cedar and pinon.
 Undergrowth, sage brush and oak brush.
 Land covered with dense undergrowth, mountainous land or land covered with heavy timber on 83.26 chs.

North, retracing on 68th. Mile.

Gradual ascent over rolling and rocky land, through heavy timber.

49.50 Leave timber, bears NE. and SW.

Enter dense undergrowth and scattering timber.

77.45 Fall 45 lks. E. of the 68th. Mile Cor., which is a cedar post, 5 ins. dia., projecting 26 ins. above the ground, marked C on E. half, U on W. half, 1885 on N. half, and 68M on S. half.

The course of this line is therefore N. 0° 20' W., and the distance 77.45 chs.

Land, rolling.

Soil, rocky loam, 3rd. rate.

Subsoil, gravel or solid sandstone.

Timber, cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth or heavily timbered land on 77.45 chs.

November 3, 1911

RETRACEMENT OF THE UTAH-COLORADO STATE BOUNDARY LINE.

CHAINS

November 4: For latitude and solar observations on this date see pages 32 and 31, respectively of the Subdivisions of T.32 S R 26 E., book " Z⁴ ", of this survey.

From the 68th.Mile Cor..I run

North, retracing on 69th.Mile.

Gradual ascent over rolling land, through dense undergrowth and scattering timber.

37.00 Leave timber.

50.00 Wash, 18 lks.wide, 4 ft.deep, course SW.

80.33 Intersect the 69th.Mile Cor., which is a cedar post, $4\frac{1}{2}$ ins. diam., projecting 26 ins.above the ground, marked C on E. U on W., 1885 on N.and 69M on S.face.

The course of this line is therefore North and the distance 80.33 chs.

Land, rolling.

Soil, sandy loam, 1st.rate, from 10 to 18 ins.deep.

Subsoil, gravel.

Timber, cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth on 80.33 chs.

November 4, 1911

November 6: At 7h.44m., a.m., l.m.t., I set off $38^{\circ}02'N.$ on lat.arc, $15^{\circ}44'S.$ on decl.arc, and determine a meridian with the solar at the 69th.Mile Cor.

Thence I run

North, retracing the 70th.Mile.

Gradual ascent over rolling land, through dense undergrowth

26.00 Enter scattering timber.

20.15 Wash, 20 lks.wide, 5 ft.deep, course SW.

80.00 No trace can be found of the 70th.Mile Cor.

I continue north,

160.68 Fall 14 lks.W.of the 71st.Mile Cor., which is a sandstone $15 \times 10 \times 3$ ins.above ground, marked C on E. U on W., 1885 on N.and 71M on S.face.

RETRACEMENT OF THE UTAH-COLORADO STATE BOUNDARY LINE

CHAINS

The course of this line is therefore N.0°03'E., and the distance 160.68 chs.

Land, rolling.

Soil, sandy loam, 1st. rate, from 12 to 18 ins. deep.

Subsoil, gravel.

Timber, scattering cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth on 160.68 chs.

November 6, 1911

November 9: For solar and latitude observations on this date see pages 40 and 43, respectively of Subdivisions of T.32 S., R.26 E., book "Z¹" of this survey.

From the 71st. Mile Cor., I run

North, retracing the 72nd. Mile Cor.

Gradual ascent over rolling land, through heavy timber.

19.00 Leave timber, bears NE. and SW.

Enter dense undergrowth.

31.00 Enter heavy timber, bears NE. and SW.

72.00 Begin abrupt descent over sandstone ledges, bearing NE. and SW.

80.33 Fall 35 lks. W. of the 72nd. Mile Cor., which is a sandstone 15x12x6 ins. above ground, marked C on E., U on W., 1885 on N. and 72M on S. face.

The course of this line is therefore N.0°15'E. and the distance 80.33 chs.

Land, rolling and mountainous.

Soil, sandy loam, 1st. rate, from 12 to 15 ins. deep, on first 60.00 chs. ; balance, rocky and sandstone ledges 3rd. and 4th. rate.

Subsoil, gravel or solid sandstone.

Timber, cedar and pinon.

Undergrowth, sage brush.

Land covered with dense undergrowth, heavily timbered

RETRACEMENT OF THE UTAH-COLORADO BOUNDARY LINE.

CHAINS

land on 80.33 chs.

November 9, 1911

William D. Geist
U.S. Transitman

For General Description of this line ,see Subdivisions
of Tps.32,33,34 and 35 S.,R.26 E.

Volume

#

R0394

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oaths of transitmen see book "Z¹" T. 32 S., R. 26 E.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191____



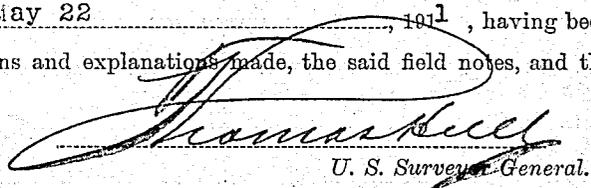
APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 19____, 1914.

The foregoing field notes of the ~~XXXXXX~~ retracement of the Utah-Colorado Boundary Line between the 47th and 72d mile corners, _____

executed by _____ Melvin D. Heist and Eben B. Andrews
under ~~his~~ their special instructions dated _____ May 22____, 191____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.


U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.